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Daniel Sharpe.

Frontisp. to Vol. 2.

Deſi. by Boucher. *J. Mynde ſculp.*

The Vine
planted in Gaul.

86980

Spectacle de la Nature:
OR,
Nature diſplay'd.

BEING
DISCOURSES
On ſuch PARTICULARS of
NATURAL HISTORY
As were thought moſt proper
TO EXCITE the CURIOSITY,
AND
FORM the Minds of YOUTH.

Illuſtrated with COPPER PLATES.

VOL. II.

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The FOURTH EDITION.

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MDCCXXXIX.

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TO
Dr. PELLET,
PRESIDENT of the
COLLEGE of PHYSICIANS.

SIR,

AS the Indiſpoſition, which oppreſs'd me, when I firſt engaged in this Tranſlation, was happily extinguiſh'd by your ſalutary Aid; I think my ſelf obliged, in Gratitude, to preſent you with ſome of the Firſt-Fruits of that Health, to which you reſtored me, when my Friends were apprehenſive that my declining State would ſoon cauſe me to be number'd among the Dead.

How engaging a Benefactor to Society are you daily render'd, by ſuch Obligations as you have lately conferr'd on me! and how ornamental is Learning, when it is thus devoted to the Welfare of Mankind!

To whom can the *Diſplay of Nature* be more properly inſcribed, than to a Gentleman, who is ſo eminently diſtinguiſh'd for his profound Knowledge of her Operations, and his ſedulous Attention to her fineſt Syſtems; and who has long been indefatigable in collecting from her Treaſures, ſo many beneficial Reliefs for the Children of Men?

As I have, therefore, taken the Liberty, Sir, to grace my Tranſlation of this Volume with your amiable Name; I may venture to hope it will obtain a candid Reception from the Publick, ſhould you happen to think it no unpleaſing Entertainment in your vacant Hours.

Your Approbation of the Original preſented me with a ſtrong Inducement to employ my beſt Endeavours to render my Verſion agreeable to an *Engliſh* Reader; and, indeed, the excellent *French* Author has diffuſed ſo much Beauty and Inſtruction through his Performance, as juſtly entitled it to my ſtricteſt Attention.

But I ought to conſider the Importance of your Moments to the Public; and ſhall, therefore, cloſe this Addreſs to you, with expreſſing my fervent Wiſh, that you may long continue a living Ornament to the Republic of Letters; and that thoſe, who are indebted to you for the in-eſtimable Bleſſings of reviving Health, and Serenity of Mind, may proclaim their Obligations to you, with the ſame grateful Pleaſure that glows in the Heart of,

SIR,

Your moſt Obliged,

and moſt Obedient,

Humble Servant,

SAMUEL HUMPHREYS.

AN EXPLANATION OF THE FRONTISPIECE.

AS *Solomon*, in the Frontiſpiece of the firſt Volume, whoſe Subject is Natural Hiſtory, was the moſt proper Example that could be introduced to authoriſe that Study; ſo no Repreſentation can be better adapted to this ſecond Volume, which comprehends all the Branches of Agriculture, than the Emperor *Probus*; to whoſe Care we owe the *Burgundy*, and *Champaign*, the *Spaniſh*, and *Tokay* Wines. He is therefore exhibited, from the Authority of *Vopiſcus*, as amuſing himſelf, after his Victories, in cauſing his Soldiers to plant the Vine, whoſe Fruit we ſtill enjoy. And in order to enliven the Deſign, we ſuppoſe that the People had immortalized their Gratitude, by erecting to the Honour of that Prince, a Column wound about with Vines, and crown'd with a large Shell, fill'd with Grapes, with the following Inſcription; in which they celebrate him in the manner *Horace* had celebrated *Bacchus*, for diſpenſing Felicity in conjunction with the Vine.

Probo Imperatori,
Patri Patriæ,
Lætitiæ Datori.

Explanation of Plate 21. VOL. II. Page 241.

A. B. The Baſe of the Pedeſtal, and other Supporters.

C. The Cheeks, or Side-Beams. Theſe are the upright Beams, whoſe lower Extremities are ſunk in the Earth, where they are ſtrongly riveted by croſs Beams charged with Maſonry. Theſe upright Beams are traverſed towards the Top by two ſtrong Beams, the lowermoſt of which is the Nut, or the Receptacle of the Screw.

D. The Screw with its Wheel.

E. The Bearer, or large piece of Timber, on which the Wheel reſts, in order to ſink the Beams croſſing the Planks that cover the Grapes, F.

G. The Maye, or Planks, on which the Pile of Grapes F. are diſpoſed, in order to be ſqueezed. Theſe Planks are cut in Notches, to receive the Liquor, and to convey it in a Slope to the Veſſel appropriated to receive it. The Maye is ſupported by a maſſive Work of Maſonry, that it may reſiſt the Effort of the Preſſure; and this Maſonry is detach'd from every other Work, in ſuch a manner that a Perſon may walk round it in order to viſit the Foundations, and the Extremities of the upright Beams, as there may be occaſion; and to open a free Acceſs of Air upon all the Woodwork.

H. The Wheel, which ſerves for forcing down the Screw and the Bearer upon the Grapes. When the Preſs is to be work'd, the Grapes are laid upon the Maye, in a ſquare Heap, over which three Poles are extended; one in the Middle, and one at each Extremity, in order to form a Baſis for the Planks that are to be laid upon it ſide by ſide. Upon theſe Planks, three, four, or five Beams are afterwards extended, proportionably to the Dimenſions of the Preſs. On this firſt Range of Beams, is placed a ſecond; and on That a third; after which, a Turning-Wheel winds off the Cord from the other Wheel, by which means the Screw and the Bearer are preſs'd down upon the Beams.

I. A leathern Pipe, for the Transfuſion of the Wine from one Piece to another. It terminates in two wooden Tubes, one of which is applied to the bottom of the Veſſel, which is to be fill'd, and the other to the large Veſſel, which is to be emptied.

K. A large Bellows; to agitate the Wine when it has ſettled into an even Surface in the two Pieces.

L. The ſame Bellows in Profile.

M. A large Fountain, which affords a quick Flow.

N. A Bung or Stopple, to cloſe the Top of the Veſſel newly fill'd; that the external Air may prevent the Efflux of the Wine upon the with-drawing of the wooden Tube.

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THE PLAN OF THE SECOND PART.

AS we were deſirous to exerciſe the Minds of young Perſons with amuſing Subjects, and to engage their Attention to the Wonders of *Providence*, by the Mediation of pleaſing Ideas; we endeavoured, in the firſt Volume of this Work, to preſent to their View, the Generality of theſe Animals, with which *that Providence* has repleniſhed the various Parts of Nature, for the Benefit of Mankind. We then proceeded to ſome obſervations on Plants, which open to us another Source of Advantage and Delight: But we limited our Enquiries to the general Structure, and only offer'd a ſlight Sketch of thoſe Claſſes which are moſt eſteem'd; as not thinking it proper, at that time, to be more extenſive on ſo vaſt a Subject. Leaving, therefore, to the Learned, the Care of propagating their Science, by an exact Arrangement of its ſeveral Branches, and by ſuch Diſquiſitions as comprehend the whole Syſtem of Nature; we imagined it would be more advantageous to our young Readers, whoſe Improvement was our principal View, not to perplex them with abſtruſe Enquiries, but to ſelect, from the beſt Books of natural Hiſtory, ſuch Particulars as were proper to excite their Curioſity.

In Conjunction with this Method, which is always ſucceſsful, we intend to have recourſe to another, in this ſecond Part; which is to engage our youthful Readers, by

the

the Impreſſions of Gratitude. This Expedient will touc them, as effectually as the firſt; and it has this addition Advantage, that as it equally contributes to the Improv ment of Reaſon, ſo it tends more directly to form the Heart, an cauſe the firſt Sentiments of Virtue to ſpring up in the Sou

All our Readers are naturally deſirous of Affluence an Diſtinction, Power and Happineſs. This Work will unfol to their View a Profuſion of Riches and Liberalities, whic cover the Surface of the Earth, and are diffuſed thro' i Bowels for their Service; and it will make them ſenſibl of the noble Sovereignty they exerciſe over thoſe Bleſſing in Conjunction with the reſt of Mankind. But before w preſent them with a Survey of all theſe Benefits, it wil be neceſſary to deſtroy a falſe Idea we generally entertai of our preſent State, while we are inſenſible of the Dignit and Advantages which attend it.

We are apt to be extremely jealous and proud of tha ſcanty Portion of Riches, in which we are capable of ſecuring the ſole Property; and, at the ſame time, form lov and feint Conceptions of thoſe we enjoy, in Participatio with the reſt of Mankind. We imagine we poſſeſs nothing but what we have acquired in this little Corner of th World, to which we are attached; and conſider all th Remainder of the Univerſe as loſt to us, becauſe we onl ſhare it with the reſt of human Race. But it is not an one Tract of Earth that conſtitutes our Domain; the whol Extent of Nature may be conſidered as our Property. W receive but few of our neceſſary Accommodations from th particular Spot of our Inheritance; ſince all the Earth i obedient to furniſh us with our Supplies. We may, conſequently, be reputed the Monarchs of this Earth; an Society, inſtead of diveſting us of our Sovereign Power is the very Circumſtance which ſecures us that Enjoyment.

In order to be convinced of this Truth let us retire, a while, to ſome unfrequented Solitude, and diſcontinue all Commerce with Mankind: Let us there endeavour to poſſeſs our Patrimony by ourſelves, and exerciſe our Sway without any Competitor. When we are reduced to the Labours of our own Hands, and can no longer have recourſe to the Advice and Aſſiſtance of others; in a word, when we ceaſe to be ſupplied with Carriages and Implements, we ſhall ſoon be deſtitute of all we need. The Earth will immediately ſhoot up Thorns and Brambles around us, and offer its Profuſion of Fruits and Flowers to other Hands. Roſes will be ſhed from Heaven, and Harveſt wave over the Glebe for others: For theſe will the Rivers roll their Streams, and the Winds diſpenſe their Gales: The Climes will vary their Productions, and all Nature be animated, for their Accommodation. When we once ſeclude ourſelves from Society, we loſe the Communication of all theſe Succours, and can never regain them, till we reſume our Intercourſe with Mankind.

For whom are Ports, and Marts, and publick Places open'd? For whoſe Benefit are long and ſpacious Roads ſtruck out? and in whoſe Favour are the oppoſite Banks of Rivers united by Bridges? Whoſe Conveniency is conſulted when Barks and Carriages are in motion, at regular Hours? For whoſe Uſe do large Veſſels divide the Waves, and for what People is the Produce of each Climate tranſmitted to all Parts? It is manifeſt, that we are all intereſted in theſe Particulars. The whole Earth is at our Service, and Community is ſo far from depriving us of our Property in theſe Enjoyments, that, on the contrary, it enables us to poſſeſs them, and ſecures us in the Exerciſe of our Prerogatives.

As an Inhabitant, therefore, of the Earth is likewiſe its Sovereign, it is but juſt, that he ſhould be acquainted with the outward and inward Parts of his Reſidence: He ought to take a Progreſs through his Empire, and acquire a competent Knowledge of every Object which is ſubordinate to his Power and Authority.

In order to take a View of all our Treaſures, without Fatigue or Confuſion, we ſhall purſue the eaſy and agreeable Order, in which they are ranged by Nature, and make our Viſits, in Succeſſion, to thoſe Places where they have been diſpoſed. We will begin then with thoſe Productions that the Earth affords us, in our own Habitations; namely, the Flowers and Verdure of our Gardens. It may be thought ſurpriſing that we ſhould open the Scene, with Particulars that are generally conſidered as mere Amuſements; but then, they are ſuch Objects, as Nature firſt preſents to our

View. Our Diſplays of her Works are not attended with any Arrangement of our own; all things are already adjuſted, and we are only to follow the eſtabliſhed Order. When we have ſurveyed our Paſtures and Groves, the next Proſpects that occur will be our Kitchen and Fruit-Gardens. But to prevent our being embarraſſed with the Variety of our own *Riches*, we ſhall only ſelect thoſe that are excellent and neceſſary. We ſhall not ſearch for every Plant, an Olitory may be capable of producing; but by a prudent Retrenchment of all ſuch as are indifferent and ſuperfluous, we ſhall cauſe it to diffuſe its Gifts through all the Seaſons, without any Intermiſſion. When we have conſidered theſe we ſhall viſit our arable Lands, and, from thence, proceed to our Vineyards, with an Intention to examine the Productions of thoſe two important Soils. We ſhall likewiſe be attentive to the particular Induſtry, by which they are manured, ſince we are as much intereſted in this, as we are in the Produce of the Land.

The Survey of our Woods, will preſent us with another Train of Benefits, and we ſhall find our Meadows pregnant with new Bleſſings. The Banks of Rivers will diverſify our Riches, and we ſhall even trace them on the dry Summit of the Mountains. Nature affords more in one Place, and leſs in another; but ſhe diſpenſes her Gifts in every Part, and the wild Heath, itſelf, is not exempted from her Liberality.

When we have entertained our View with the Number of ſalutary Plants, which cover the Earth; we ſhall proceed to conſider the Springs and Rivers that lave it with their Streams. We ſhall be careful to purſue the Flow of thoſe Waters, which are commiſſion'd to glide by our Habitations; to impart Fertility to our Plains; to ſlack the Thirſt of Animals; to give Vegetation and Growth to Plants; to accommodate our Tables with Fiſh of an excellent Juice, and connect the different Regions of the World, by mutual Tranſportations. We ſhall, afterwards, endeavour to diſcloſe the Sources from whence they derive their Progreſs; and when we penetrate the Entrails of Mountains and Plains, we ſhall diſcover the amazing Structure of thoſe Reſervoirs whoſe Cavities are repleniſhed with Waters, we ſhall obſerve

Vol. III.

the Function of thoſe Mountains which collect them, and the wiſe Formation of the Channels which diſtribute them thro' various Lands; and ſhall be ſenſible of the Uſe and Productions of that immenſe Baſon into which they flow. We ſhall then attempt an Eſſay on the Operation of the Air, which perpetually raiſes them from their Level; and ſhall conſider that active Force which impels them to ſuch a Height, as enables them to water the Mountains themſelves, and diffuſes them, by a Diſtillation which is always new, in ſuch Quantities as ſupply the Beds of Rivers, and perpetuate the Verdure of the Earth.

When we have examined thoſe Objects which are moſt uſeful on the Surface of the Globe, we ſhall viſit its Regions within. There, as in a vaſt Magazine, we ſhall find, reſerved for our Uſe, a Variety of oily Juices, and treaſured Salts, which are fertile in a thouſand Effects; together with innumerable Veins of Earth, whoſe Uſes are multiplied, in proportion to their Qualities. We will then deſcend into Quarries and Mines, where we ſhall ſtill continue to obſerve the Conformity eſtabliſhed by the great Creator, between his Gifts and our Neceſſities. We ſhall firſt conſider Stones and Metals, in their natural Form, after which we intend to enumerate the chief Advantages we are able to derive from them.

Theſe are the Treaſures we enjoy: But our View of their Variety would be entirely frivolous, were mere Curioſity, or Oſtentation our only Motives. That View ought to be ennobled by a very different Purpoſe. All theſe Riches are not imparted to us without a Deſign; and the leaſt we can do, when we receive them, is to acknowledge the Intention of our Benefactor.

Though Language be the chief Medium, by which Mankind converſe with each other, yet their Thoughts are capable of Communication, by a Number of other Signs; and no Language is more intelligible, than that which flows from Preſents. When delicious Wines or ſhining Silks are tranſmitted to us by an abſent Friend, we are ſenſible of his Meaning without the Aid of a Letter, or Meſſenger; and the more amiable his Preſent appears, the greater is our Satisfaction, at the honourable Rank he allows us in his Heart. We likewiſe have each of us a Friend, who is equally propitious and powerful, and that Friend is the Author of

Nature. He ſeems, indeed, to be abſent from us, but w are the conſtant Objects of his Care, ſince he ſheds hi Gifts around us, without Intermiſſion. He is, every Moment, converſing with us by Liberalities that are never t be exhauſted. They are diffuſed over the Face of th Earth, for our ſakes: for if we were not the Inhabitants, all theſe Riches would be without Poſſeſſors, and without Admirers: He likewiſe maintains with us a conſtant Intercourſe of active and tender Friendſhip; and as this Language is equally clear and affecting, we might juſtly be taxed with Stupidity, were we not to underſtand and anſwer it. The Letter which concludes the third Volume of this Work *, and is entitled *Uſeful Reflections on the whole*: repreſents the End and Intention of all thoſe Preſents which the Deity offers to Man. We have there explained the ſecret Engagements that are contracted by thoſe who receive them; and, if I may uſe the Expreſſion, we have exhibited the firſt Elements of the Language, in which God converſes with us, and in which we ought to anſwer Him.

Our Readers, therefore, muſt not here expect thoſe Sentiments, that may be called the Eloquence of Piety, and the Effuſions of Gratitude. We are more ſolicitous to make young Perſons ſenſible of the Benefits they have received, than to teach them how to render their Acknowledgments. We ſhall gain a conſiderable Point, if we are able to convince them of thoſe tender Regards the Deity has diſcovered for their Welfare; and if we can be ſo happy, as to affect them with the firſt Motives to a juſt Return, they will learn the reſt from the Heart, which is always the moſt noble and inſtrumentive Maſter.

The Neceſſity of knowing the moſt common Things.

Our main Intention was to render the Knowledge of the Voice and Will of God, in all the Objects which are daily preſented to our View habitual to Youth; after which we had nothing more at heart, than to make them acquainted with thoſe Particulars, that are moſt obvious and familiar in human Life. It is a Happineſs to be converſant with ſuch Maſters as can inſtruct us in thoſe Subjects that are ſublime as well as intricate and uncommon. But we daily complain of our Unacquaintance with thoſe that are moſt uſeful, and even the Learned may, poſſibly, have the greateſt Reaſon to reproach themſelves in this Particular.

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* This Letter will ſufficiently acquit us of our Promiſe, to thoſe who purchaſed the firſt Edition of the firſt Volume, to clear up ſome Paſſages which needed ſuch an Explication. The Plate inſerted at Page 382 of the third Volume contains thoſe Particulars, that will give a ſatisfactory Idea of the Proceſs of Vegetation.

'Tis certainly prudent to prevent young Perſons from being confuſed in their Studies, by too great a Variety of Objects. When their Education in the Schools is completed, they reſign themſelves entirely, either to ſome Science of their own Choice, or to the Duties of the ſtate of Life they embrace; and too frequently to their Pleaſures. And thus they advance through the ſeveral Stages of Life, without knowing the Generality of thoſe Things which contribute to its Support. Theſe Things are likewiſe diſperſed, and they ſeldom ſearch for them, where they are likely to be found; or obſerve them, when they occur to their View. Such a Perſon for inſtance, who knows the Elms that grow in his own Avenues, or remembers to have ſeen the Maple and the Oak in his Woods, will have no Idea, either of the Pine, or the Cheſnut-Tree. Another, who has frequently obſerved the common Trefoil in his Meadows, may poſſibly be a Stranger to the Saint-Foin, or the Snail-Trefoil. A third has viewed the outſide of a Ship, but is ignorant of the Arrangement of its interior Parts. This Man, who has ſeen the Veſſels of *Havre-de-Grace*, or *Dieppe*, has no Conception how the Galleys of the *Mediterranean* are built. It may therefore be very uſeful to Readers, to have the greateſt part of thoſe Things that are common, and the Subject of daily Diſcourſe, preſented to them in a portable Volume, and rendred viſible by the Aid of the Engraver.

'Tis with this Intention that we have cauſed Plates to be engraved from ſeveral Deſigns, the greateſt part of which were taken from Nature; by which means, we have repreſented the moſt amiable Flowers that are cultivated by the Curious, in preference to others; together with the various Diſpoſitions of our Parterres and Groves, and the moſt irregular Plots of Ground. We have likewiſe exhibited the different Foliage of Ever-Greens, and other Trees which compoſe our Paliſades, and Alleys; and have alſo delineated the Leaves of thoſe Trees that are uſed by Joiners, Carpenters, and ſome other Workmen ; well as thoſe that accommodate us with Fuel; all whic we cut down in our Foreſts. To theſe we have adde Draughts of thoſe Preſſes which furniſh us with the Ju ces of Grapes, Apples, and Olives; and have not omi ted the moſt uſeful Herbs in our Meadows. Theſe Objec that are all ſo common, and yet but little known, are ſu ceeded by thoſe which relate to Rivers, the Ocean, an the interior Parts of the Earth. We firſt repreſent th different Strata, which are extended over one another, in th Heart of Mountains, and under the Surface of Plains ; to gether with the Courſe this Diſpoſition gives to the Sub terranean Waters, as well as to thoſe that flow on the Su perficies of the Earth. We then introduce the Fiſhes tha live in freſh Streams, and thoſe that retire, from th Sea, into Rivers: The principal Fiſheries have, likewiſe their place in this Collection. When we have aſſemble the greateſt Curioſities of the Sea, ſuch as Fiſhes that diffe from the common Form, the fineſt Species of Shells; th principal Plants that grow in the mighty Waters, and th Fiſhery of Coral; we proceed to the Advantages of Navi gation, but fancied we ſhould be defective in one Particu lar, which is but little known, though very familiar i Converſation, if we had neglected to exhibit the exterio Form, and the inward Arrangement of a large Ship, a likewiſe a Galley, and the ſmalleſt Veſſels; togethe with the manner in which they are launched.

Jewels, Stones, and Metals, being incapable of deriving any Aid from the Engraver ; as any one may experience, by caſting an Eye on the pompous and inſignificant Plates, in the third Volume of the Hiſtory of the *Danube*, by the Count *de Marſilli* ; we omitted a number of Singularities, that are to be found in the Entrails of the Earth, and only cauſed ſeveral petrified Bodies, and figured Stones to be engraven ; becauſe, as they imitate the Shapes of Animals, or Plants, they are eaſily known, and likewiſe create ſeveral curious Enquiries.

To render the Knowledge of theſe Particulars eaſy and agreeable, we were careful, as much as poſſible, to have Recourſe to thoſe Figures that correſpond with the natural Dimenſions of the Things they repreſented, and are always more proper to fix an Idea of the Object, than any written Deſcriptions that can be invented. Give a young Reade a Relation of Leaves that are cockled, fleſhy, oblong, ſinuous, or laciniated; theſe learned Terms will confound himſ and change his Amuſement into a laborious Study. But i you ſhew him the Leaf of a Plant, he immediately comprehends the Difference between a common Elm, and a Yoke Elm; a Linden Tree, and a Birch; and will conſequently remember them without any difficulty. He will ſay, as he paſſes through a Wood, or a Meadow, this Plant is called Saint-Foin, and that Tree is an Aſpin; here grows an Oak, and there a Fir-Tree.

All theſe Families are diſtinguiſhed, by their various Liveries, and thoſe Perſons who make them the Subject of their daily Diſquiſitions, think it ſufficient to mark them out, by the Figure of their Leaves and Seeds. We may therefore be ſatisfied with this Method of Diſcovery; and, indeed, we were induſtrious to avoid an elaborate Aſſortment of each Plant, in that certain Claſs, or particular Genus or Species, into which Monſieur *Tournefort* has ranged them. Our Readers would have been ſhocked, at thoſe Diſtributions of ſimple and compound Flowers; of ſterile and fertile Simples; of compound Monopetales, and compound Polypetales; of Monopetales which are either regular, or open'd in the Form of Bells, Tunnels, or Roſes, *&c.* Theſe Diviſions and Subdiviſions, with a Variety of others, may be neceſſary to form a Herbaliſt, or furniſh a Dictionary for a Botaniſt; but as they would have been exceedingly miſplaced in this Work, the Cenſures we may ſuſtain by omitting them will be altogether as ill-diſpoſed.

As moſt of the Articles of this ſecond Volume, and part of the third, relate to the practical Part, more than to mere Curioſity, I was unwilling to commit any Miſtakes, that might be injurious to my Readers: for which Reaſon, I had recourſe to Monſieur *Le Normand*, Director of the Herb-Garden of *Verſailles*, and to Monſieur *Bernard de Jeſſieu*, Lecturer of the Royal Gardens; and I received from the polite Civilities, and profound Knowledge of thoſe Gentlemen, all the Aſſiſtance I needed on that Occaſion. They were ſo obliging as to review all the Converſations on Plants, and enabled me to give them their proper Appellations. This Remark was neceſſary for two Reaſons : My Readers will find their A count in it, and I have an Opportunity of teſtifying m ſincere Gratitude with Pleaſure.

APPROBATION.

I *Have read by the Order of the Lord Chancellor the ſe cond Part of* Nature Diſplay'd, *and am perſuaded, i will prove as agreeable to the Publick as the Firſt.* Paris 15 December 1734.

Joſeph Privat de Molieres

Nature

NATURE DISPLAY'D.

THE SECOND PART.

FLOWERS.

DIALOGUE I.

The COUNTESS. *The* PRIOR. *The* CHEVALIER.

Cheval. I HAVE loſt nothing, by deferring my Return to the Month of *May*, inſtead of *December*. All the Landſkip around me is extremely charming.

Counteſs. Thanks to the returning Spring, and the new Bloom of Flowers.

Cheval. Thoſe that border the Parterre form a moſt delightful Proſpect, but as yet I have only beheld them from the Balcony.

Counteſs. We may eaſily deſcend, and take a nearer View: But I muſt intreat the Prior to inform me, why the firſt appearance of a Flower-Garden inſpires each Beholder with a ſudden Pleaſure, and whence it can proceed, that without any diſtinct Thought we are, that Moment, ſenſible of a Satisfaction. we experience in no other Place?

The Cauſe, in my Opinion, is to be deriv'd from the rich Colours which ſtrike our Sight, and it is not without Deſign, that Flowers have been array'd with ſo much Splendor.

Prior. I would willingly know the Chevalier's Sentiments, on this Subject.

Cheval. I freely confeſs it never enter'd into my Thoughts to ſeek for any Deſign in Flowers; but if I may judge of them, by the Delight they afford me, they were certainly created to pleaſe us.

Counteſs. That ſeems to be a flattering Thought: But is it nothing more? And muſt we really take it for an Illuſion of Self-Love?

Prior. I am far from entertaining that Opinion: There is a manifeſt Connexion in all Nature; and tho' each Object has its particular End, in that Syſtem, or may happen to correſpond with ſome other, we ſee that all of them have an ultimate Relation to Man. They are united in him, as their proper Center; he is the End of all, ſince he alone has a Uſe for the Whole. For him the Sun riſes each Morning, and for his Accommodation, the Stars glitter in the Firmament: And if the moſt diſtant Bodies ſerve him, with ſo much Regularity, he has the more reaſon to conclude, that thoſe which are plac'd ſo near him are all appointed for his Uſe.

Counteſs. It is evident that the Flowers, in particular, are form'd to pleaſe him and it is for his ſake that they have receiv'd their amiable Appearance. No Eyes, but his, can enjoy their Beauties. The Animals never ſeem to be affected with Pleaſure, when they behold them, nor do they ever ſtop, to conſider them with Attention. They confound them, with the common Herbage of the Field; they trample on the moſt beautiful of the Tribe, and are perfectly inſenſible of this Ornament of the Earth. Whereas Man, amidſt a Crowd of Objects and Riches that ſurround him, diſtinguiſhes and purſues the Flowers, with a peculiar Complaiſance.

Prior. They have likewiſe an agreeable Correſpondence with our Eyes, and a Set of powerful Attractions, that invite us to approach them. Whenever we gather them they preſent us with new Perfections in proportion to our regarding them with a nearer Attention. The greateſt part of them not only regale our View with the Beauty and Arrangement of their Colours, but gently delight our Smell with an exquiſite Perfume; and when they have gratified our Senſes with an innocent Satisfaction, the Mind ſtill diſcloſes Wonders in them, which raviſh its Faculties.

The firſt End of Flowers.

If I am inclinable to trace this Flower thro' all its Progreſs, from its Birth, I perceive it always appears in the Place where the Seeds are to be unfolded; and wherever that is wanting, theſe are not to be expected. The Trees that grow in Foreſts, and thoſe that bear Fruits, the different kinds of Pulſe, together with the Herbage of the Field, are yearly cover'd with Flowers, more or leſs lively in their Glow, in order to produce a Fruit, or Seed, which is generally formed, unleſs the Flower itſelf was in no condition to blow, or has not been ſufficiently preſerved. I am deſirous to diſcover the Relation between a Flower and a Seed, and when I have carefully ſurvey'd the Structure of the former, I always diſcover one or more Encloſures appointed for the Reception of the Seed. Around that Encloſure I obſerve a ſet of Chives ſuſtaining ſeveral Packets of Powder, which they ſcatter on all Parts. The whole is encompaſſed with an Empalement, or ſoft Robe, that unfolds and cloſes, with a kind of Precaution, according to the diſpoſition of the Air. All theſe Relations have a Language I underſtand, and they contribute to my Inſtruction; till at laſt, I am convinced that theſe Parts, which are diſpos'd with ſo much Art and Regularity, and wither round the Encloſure, when the Seed is formed, are inſtrumental in the Generation of that Seed. I likewiſe diſcover the original Deſign of Flowers. The Deity, by diſpenſing the Verdure of the Earth to Mankind, has perpetuated his Gifts, thro' all Ages, in conſequence of the Commiſſion he has given the Flowers, to renew each Plant from Year to Year, by infuſing Fertility into the Seed.

Cheval. This is a Function truly noble; but if they are found to impregnate the Seed, can we continue to ſay they were created for our Pleaſure?

The ſecond Uſe of Flowers.

Prior. This important and firſt Deſign, to procure Immortality to Plants, is not inconſiſtent with a ſecond, which is to delight the View of Man. When God created the Flowers he thought fit to blend Utility with Pleaſure. If he had only appointed them, to furniſh each Plant with a re-productive Seed, he would not have grac'd the generality of them with ſuch amiable Forms and engaging Colours; but they would have reſembled Roots, which being only calculated to impart Nouriſhment to the Plant in a Situation of Obſcurity,

ſcurity, were not provided with any Embelliſhment. Whereas the great Being, who form'd the Flowers, ſeems to have taken pleaſure to ſhape and paint the greateſt part of them, in ſuch a manner, as qualifies them to regale the View of Man, and adorn his Habitation.

Counteſs. We have no occaſion, at preſent, to expatiate on that ſurpriſing Structure of Flowers, which produces ſuch uſeful Effects, ſince we have ſufficiently enlarged upon it formerly: Let us therefore be more particular in conſidering the Pleaſures they are commiſſioned to procure us.

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In the firſt place, there are a Number of Flowers that ſeem only form'd to preſent Mankind with a Collection of Sweets: and while others are preparing for him a Fruit, which he will uſe after the Diſappearance of the Flowers, theſe are far from being indifferent, tho' he is not conſcious they have any other Merit than the Pleaſure they afford him; but they preſent themſelves to him, in their turns, with ſuch an engaging Air, as makes it evident they all pay their Court to him as their Lord.

Prior. It is difficult to conceive how far the Deſign to delight Man with the Beauty and Profuſion of Flowers has been extended. Their Multitude is a real Prodigy, and one would imagine they had been commanded to ſpring beneath every Step we take. Each part of Nature unfolds them to our View, in their turns. They rear their Heads on the lofty Tops of Trees, and are diffuſed thro' the Herbage that creeps along the Earth: They embelliſh the Valleys, and the Mountains, and the Meadows are enamelled with their Colours. They are gather'd from the Skirts of Woods, and make their Appearance even in Deſerts: The Earth is a Garden entirely cover'd with their Bloom; and leſt Man ſhould be deprived of this delicious Proſpect, when he retires within the narrow Confines of his Habitation, they ſeem deſirous to render this more amiable to him, by ranging themſelves in his Parterre, and creating him more Pleaſure than they afford him in any other Situation.

The vaſt Number of Flowers.

Counteſs. Would not one be apt to ſay, that, at leaſt, the moſt lovely of all the Tribe are ſeparated from the Commonalty of Flowers, in order to form a ſhining Embaſſy; and that they advance to render Homage to their Lord, and are deputed to hail him King of Nature?

Prior. 'Tis an infallible Truth, that the Beauty of Flowers never fails to inſpire us with Joy; and when we have ſufficiently examined the faireſt, we are ſenſible they are only proper to refreſh the Sight; and indeed, the Proſpect they afford is ſo touching, and we experience their Power to be ſo effectual, that the generality of thoſe Arts which are ambitious to pleaſe, ſeem moſt ſucceſsful when they borrow their Aſſiſtance. Sculpture imitates them in its ſofteſt Ornaments, Architecture beſtows the Embelliſhments of Leaves and Feſtoons on thoſe Columns and Fronts, which would otherwiſe be too naked. The richeſt Embroideries are little more than Foliage and Flowers; the moſt magnificent Silks are almoſt cover'd with theſe charming Forms, and are thought beautiful, in proportion as they reſemble the lively Tinge of natural Flowers.

The Beauty of Flowers.

Theſe have always been the Symbols, or Repreſentations of Joy; they were formerly the inſeparable Ornaments of Feaſts, and are ſtill introduced with Applauſe, toward the cloſe of our Entertainments, when they are brought in with the Fruit, to enliven the Feſtival that begins to languiſh: And they are ſo peculiarly adapted to Scenes of Pleaſure, that they are always conſidered as inconſiſtent with Mourning. Decency, inform'd by Nature, never admits them into thoſe Places, where Tears and Affliction are predominant.

Counteſs. The Feſtivals in the Country are never celebrated without Garlands, and the Entertainments of the Polite are uſher'd in by a Flower. If the Winter denies them that Gratification, they have recourſe to Art. A young Bride, in all the Magnificence of her nuptial Array, would imagine ſhe wanted a neceſſary part of her Ornaments, if ſhe did not improve them with a Sprig of Flowers. A Queen amidſt the greateſt Solemnities, tho' ſhe is cover'd with the Jewels of the Crown, has an Inclination to this rural Ornament; ſhe is not ſatisfied with mere Grandeur and Majeſty, but is deſirous of aſſuming an Air of Softneſs and Gaiety, by the Mediation of Flowers.

Prior. Religion itſelf, with all its Simplicity and Abſtraction, and amidſt the Abhorrence it profeſſes to theatrical Pomp, which rather tends to diſſipate the Heart, than to inſpire it with a due Reverence for ſacred Myſteries, and a

Senſibility of human Wants, permits ſome of its Feſtivals to be celebrated with Boughs, and Chaplets of Flowers.

Chevalier. All Perſons in general are touched with the Beauty of theſe Productions; and 'tis a Misfortune we ſhould ever be deprived of their View.

Counteſs. It is certain, that what has been ſaid of a different kind of Beauty, may be applied to each Flower in particular.

The faireſt Forms that Nature ſhows
Suſtain the ſharpeſt Doom;
Her Life was like the Morning Roſe,
That withers in its Bloom. *

The Succeſſion of Flowers.

But as the generality of Flowers are employed to adorn the Dwellings of Man, at leaſt for a certain Time, they never make their Appearance in one united Body, nor at the ſame Period of Time. They tender him their Service in Succeſſion; they agree to beautify the different Seaſons; they ſucceed each other, without leaving any vacant Spaces, and we ſeldom complain of their Abſence, ſince they divide among them the four Portions of the Year.

The variety of Flowers in each Seaſon.

Prior. The Flowers, by this Succeſſion, entertain us with a ſplendid Feaſt, wrought into Decorations that ſucceed each other, in a regular Order. The flow'ry Liverwort, Cowſlips, Violets, Hyacinths, Auriculas, Lilies of the Valley, Daffodils, and Wind-Flowers, preſent us, if I may uſe the Expreſſion, with the firſt Act.

Theſe diſappear, for the moſt part, and reſign their Places to Imperial Crowns, Arabian Beans, Flower-de-Luces, Jonquils, the Ranunculus, and all the Flowers which, at preſent, crown this Parterre. The diſtant Fruit-Trees intermix their ſofteſt Colours with the riſing Verdure, and heighten the Glow of the Parterre.

You may, at the ſame time, ſee the opening Bloom of the

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* . . . . Les plus belles choſes
Ont le pire deſtin;
Elle a vêcu ce que vivent les Roſes,
L'eſpace d'un Matin. *Malherbe.*

Roſe-Buſh, the Lily, the Julian, the Gilliflower, the Gold-Locks, the Mithridate-Muſtard, the Carnation and Poppy: Their Stems and Buds are fortified by inſenſible Growth; and theſe are the Preparations for the Array of Summer.

Autumn will afterward unfold the Pyramidal, the Balſamine, the Turnſole, the Tuberoſe, the Amaranth, the Indian Pink, the Meadow Saffron, with a Variety of other Species. The Feſtival will be continued without Interruption: The predominant Colours are always aſſuming an Air of Novelty, and prevent, by their agreeable Variations, that Diſguſt which is inſeparable from Uniformity.

The Winter, attended with its Train of Froſts and lowering Skies, draws her ſable Curtain at laſt over the Face of Nature, and intercepts its Features to our View; but while it diſpoſes us to wiſh for the Return of verdant Scenes and Flowers, it affords ſome Repoſe to the Earth, which has been exhauſted by ſo many Productions.

Counteſs. We are ſo ſenſible of the Beauty of Flowers, that we have acquired the Art of ſecuring their Preſence, in ſpite of the Rigours of Winter. We preſerve the ſhatter'd Remains of Autumn, and can frequently raiſe a Bloom of Spring-Flowers, without waiting for the Return of the Zephyrs, whoſe Approaches are always too ſlow. The Tuberoſe, the Amaranth, the Stork-Bill, and the whole Claſs of Flowers that are well regulated, may be much retarded in their Appearance, and preſerved till the Laurus-Tinus flouriſhes in our Apartments, that exclude the injurious Blaſts of the North. The Wind-Flower and the Violet, aided by a moderate Heat, and the Hyacinth and Daffodil placed in a warm Air, and daily refreſhed with Water, will adorn our Chimneys in the moſt gloomy Months. Thus do we connect the Autumn and Spring, and they ſeem to aſſociate with a pleaſing Harmony.

Prior. The Flowers are not only diverſified from one Seaſon to another, but even thoſe that bloom together in the ſame Period of Time, have a beautiful Variety of Forms, which demonſtrate the endleſs Invention of their Author, together with his Deſign to multiply the Ornaments of our Habitations. 'Tis impoſſible to enumerate the different Plans, by which all the Families of Flowers have been form'd without repeating any perfect Similitude between them. Every Touch is truly original, and peculiar to a certain Species. They vary among themſelves, in the Shape of th Petals *; and the Delicacy of the Fringe that borders them the Diſpoſition of the Chives that are connected with the Heart; the Structure of the Cup that unites the ſevera Parts; the Formation of the Stem that ſuſtains them; the Turn of the green Foliage that ſurrounds them, and principally in the Colours, with which they are tinctured, and the Airs peculiar to their Claſs. Let us take a ſhort Survey of the Beauty that reſults from ſo many ſplendid Tints.

The Colours.

I am not certain whether Flowers derive more Advantage from being viewed in conjunction with each other, or from a ſeparate Conſideration of their Beauties. When they are united in a Cluſter, they form an Aſſortment that diffuſes an engaging Propriety thro' the whole. Nothing appears indelicate, ill-diſpoſed, or too much contraſted. The Concourſe of all theſe Colours produces a Harmony, extremely varied, and which entirely ſatisfies the Eye. When they are conſidered in a ſeparate View each Individual diſcovers its perſonal Merit by a Symmetry peculiar to its Nature. Let us gather the firſt that accidentally comes to hand.

It is one of the laſt party-coloured Anemonies, and alone preſents me with all the Beauties I admire in the whole Parterre. I here obſerve a Variety of different Colours, which grow fainter by degrees, and by the ſofteſt Diminutions loſe themſelves in the Luſtre of the adjoining Tints. The Tulip, on the contrary, limits its Colours by a delicate Stripe, which is elegantly diſtinguiſhed, and by contraſting one Colour with another heightens the radiant Complexion of both.

The Form of Flowers.

If the Divine Wiſdom ſeems to have had a Complacency in the Diſtribution of thoſe Colours that array the Flowers, what a new Charm has it imparted to them in their particular Airs and Forms! Take a general View of the Flowers that fill the Diviſions of this Parterre; you may obſerve ſome of them riſing with a Mein of Dignity and Grandeur; others, without the leaſt Pomp or Oſtentation, attract the Eye by the Regularity of their Lineaments. What an Aſpect of Majeſty is viſible in the Growth of

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* The Leaves that compoſe the Vaſe of the Flower.

Tulips! How elegant is the Symmetry of thoſe Pyramids, in which the Lilies will ſoon appear! At the foot of theſe ſtately Flowers I diſcern a Panſy, which diſcloſes nothing remarkable: One would imagine it wanted Reſolution to make its Appearance. It promiſes but little at a diſtance; but the Moment we approach it, we find ourſelves delighted with a refreſhing Fragrance, and a Profuſion of peculiar Graces.

Counteſs. You have given me a ſenſible Pleaſure by raiſing it from its Obſcurity: 'Tis, indeed, my favourite Flower, becauſe it not only affords us its Preſence in all Seaſons, and ſupplies the Abſence of other Flowers that have diſappeared, but is likewiſe graced with a Fineneſs of Texture, and a Glow of Purple which nothing can imitate; the ſofteſt Velvets, when compared with this little Flower, appear like Canvas to the Eye.

Cheval. It is certain, that the Works of our Looms have neither the Delicacy, nor the Luſtre of Flowers; but then they have one Advantage of which theſe are deſtitute. They may be changed and diverſified by new Inventions; whereas Flowers are always the ſame. How pleaſing are the Charms of Variety!

The Uniformity of Flowers.

Counteſs. 'Tis a Pleaſure we are very ſolicitous to procure, in all our Works. We conſult it in our Habit and Furniture, our Muſic, Language, and Building. All our Inventions are in a conſtant Fluctuation, and we are never fixed in any one Particular. One Mode is baniſhed by another, and we are not certain that the beſt of our Performances will be thought agreeable, either for the ſpace of a hundred Years, or at the diſtance of a hundred Leagues. We vary the ſame Things into a Thouſand Shapes, but after we have reformed them with our utmoſt Care, we find ourſelves as uncertain, and as little advanced in our Progreſs as we were the firſt day. But the Caſe is very different in the Equipage of Flowers: The Subſtance, the Colour, the Shape, are always the ſame, if we except a few Tinctures, whoſe Variations are very inconſiderable, and always pleaſing. We are never tempted to alter them, by any Additions, or Diminutions: We ſhould be deprived of all their Beauty by that proceeding, and their Model is ſo amiable already, that we are perſuaded it needs no Reformation. The Roſes have never changed from the beginning of the World, and they have conſtantly created Pleaſure to this Moment.

Prior. Theſe are Beauties which, without any Preparations, or ſedulous Attention, have attained their Perfection, in all the Simplicity of Structure, and are fixed by the Standard of Truth.

Counteſs. This may be the very Circumſtance, that occaſions the real Difference between the Beauty ſo inſeparable from the Works of Nature, and that which is changeable and tranſient in the Productions of Man.

Prior. We muſt not be ſurprized, if Men are limited, unfertile and fickle in their Inventions. They proceed with uncertain Steps, when they would trace out what is amiable. That Matter which they ſhape into innumerable Forms, in order to accommodate themſelves with Houſes, Furniture, and Habits, is not their own Work. They are even unacquainted with its conſtituent Parts; it often fruſtrates their Labours, and is frequently deſtroy'd, or rather diſconcerted under their Hands. They endeavour to re-adjuſt it in a more promiſing Form; but when they have accompliſhed it to the beſt of their Capacity, it is attended with freſh Inconveniencies, and creates them new Diſſatisfactions.

The Source of Beauty.

The contrary of all this is viſible in the Works of God, and every Part of his Creation has a determined and perſevering Beauty. His Will regulates all that is amiable. The Object which he has once created never varies, and is always pleaſing. He makes it evident, that he is the Maſter of Nature, and that he renders it tractable to his Laws. This Matter, which conforms to his Orders with ſo much Pliancy and Obedience, aſſumes all the Shapes with which he pleaſes to impreſs it, and is immediately productive of each Effect that he ordained. He imprints upon it the moſt apparent and oppoſite Characters, according to his Sovereign Pleaſure. He molds the Face of a Lion, a Tyger, and a Leopard, into an Aſſemblage of dreadful Features and Lineaments, that fill the moſt undaunted Hearts with Terror. But when his unerring Hand faſhions the ſame Matter into Flowers, to delight our View, he frames them in a different manner. He gives them a ſoft and elegant Form, and arrays them with the moſt delicate Attractions, that inſpire us with Delight, the Moment we behold them. He confines the terrifying Forms of Nature to Woods and Deſerts remote from Man, but ſheds a Profuſion of Flowers and Verdure over our Fields, our Meadows, our Gardens, and all the Proſpect around us. Man, therefore, beholds himſelf encompaſſed with Objects that are only offered to his View, with an Intention to ſolace him in his Labours, by preſenting him with Pleaſures in every Part, that amuſe him without corrupting his Mind.

The Fragrancy of Flowers.

Counteſs. Flowers are not only intended to beautify the Earth with their ſhining Colours, but the greateſt Part of them, in order to render the Entertainment more exquiſite, diffuſe a Fragrance that perfumes all the Air around us; and it ſhould ſeem as if they were ſolicitous to reſerve their Odours for the Evening and Morn, when walking is moſt agreeable; but their Sweets are very faint during the Heat of the Day, when we viſit them the leaſt. Have the Flowers entered into any mutual Agreement to ſerve us with ſo much Complaiſance?

Prior. The Sap is perpetually tranſpiring through the Flowers in Proportion to the Sun's Warmth. Theſe fine Spirits, which are the Eſſence and aromatic Parts of the Flowers, are eaſily diſperſed through an Air rarified by Heat, and affect the Smell but faintly at that time; but their Diſſipation is much abated, when the Air is condenſed by the Return of Night. The Action of the Sun, by which they are diffuſed, is too weak in the Morning and Evening, to ſcatter them to any conſiderable Diſtance, and 'tis then that the Re-union of theſe Spirits affects us with the ſtrongeſt Impreſſions.

The Atmoſphere of Flowers.

The Evaporation of theſe minute Particles forms an Atmoſphere around the Flower, which is diſſipated or condenſed, as the Action of the Air or Sun is more or leſs intenſe.

Crane's Bill.

Counteſs. The Spirits which compoſe the Atmoſphere of Perfumes, as you call it, muſt be extremely ſubtile, and delicate, ſince the Day-Light alone is ſufficient to diſperſe them through the Pores of ſome particular Flowers. I cultivate one, for Inſtance called the Crane's Bill, with a Tuberoſe Roo which never diſpenſes the leaſt Odour, while the Day co tinues, but is exquiſitely fragrant in the Night.

Prior. This is a Demonſtration that the Spirits of Flow ers are diſperſed in Proportion to the Sun's Action upo them. But with your Permiſſion, Chevalier, we will n confine ourſelves to this Particular. In the Study of natura Things true Philoſophy is never limited to the Contempla tion of their Mechaniſm, but extends its Curioſity to th Benefits they produce: we are eaſily ſenſible of the Inter courſe that appears between the Flowers, the Air, and th Sun-beams; and can we poſſibly be unacquainted wit that Goodneſs which is ſo attentive to make this Corre pondence advantageous to Man? He is treated like a Sove reign in each Particular. Providence has not only ena melled his Way with Flowers, for the Entertainment o his View, but has taken care to embalm and purify th Air he breathes, by ſhedding the nobleſt Perfumes in hi Paſſage. One would even imagine that the Flowers ac quitted themſelves of this Duty with a conſcious Punctu ality, ſince they reſerve their moſt ſenſible and pleaſing Ex halations for thoſe Moments of the Evening, when they behold Man reſorting to their Beauties for his Recreation after his Labours.

Other Qualities of Flowers.

Counteſs. Their Services are not limited to the Sight, and Smell, and other Senſes may derive Advantages from their Miniſtration. They ſupply us with Paſtes to enrich our Deſerts, and preſent us with Powders to perfume our Wardrobes; they afford us delicate Syrups, and even Remedies to relieve us when we are indiſpoſed. Violets, Jonquils and Peach-Bloſſoms, Roſes, Jeſſamines, Carnations, and eſpecially Orange Flowers, accommodate us with Conſerves, and a Variety of Confections; together with Eſſences and diſtilled Waters, that continue to us the Enjoyment of the Odours and other uſeful Qualities of Flowers, when they have long ceaſed to be in Seaſon.

Chevalier. I have always been fond of Flowers but my Idea of their Merit was too mean and imperfect; I conſidered them as little Productions that were accidentally ſcattered over the Earth. But I am now ſenſible they make their Appearance to pleaſe me, and I regard them with Admiration and Gratitude.

Counteſs. Nothing can be more juſt than that Thought; what Advantage could we derive from the Senſe of Sight, were it not accompanied with proper Sentiments?

Prior. The Flowers, my dear Chevalier, which tender us ſuch pleaſing Services, diſcloſe a Function ſtill more noble and beneficial, by perpetuating the Plants, and embelliſhing the Face of Nature.

Chevalier. What can they poſſibly do more?

Prior. They furniſh us with Inſtruction, and conduct us by gentle Steps to the Knowledge of the firſt Being, who has condeſcended to ſhape and paint them with ſo much Delicacy, and to grace them with ſuch a Variety of Beauties. how amiable muſt he then be, who is the Source of ſo many Charms in ſuch an Infinity of Objects, to which he conſtantly imparts the ſame Luſtre they diſcloſed, when they firſt appeared on the Earth! And if he has been pleaſed to beſtow ſo magnificent an Array on Creatures of ſuch a tranſient Duration, and who to-morrow will be withered and trodden under foot, like the Herbage of the Field, what will he not do for us, who are the Objects of his Complacency? What riches will he not ſhower upon us with Profuſion, when he ſhall fill the Deſires which he himſelf has created within us, and when his Omnipotence ſhall be employ'd to embelliſh the Souls of Men?

THE PARTERRE, OR, FLOWER-PLOT

DIALOGUE II.

The COUNT. *The* CHEVALIER.

Chevalier. IF I ſhould have an Inclination to be a Floriſt, will your Lordſhip condeſcend to be my Inſtructor?

Count. You are to ſet out for *Italy* next Year; and t what purpoſe, then, ſhould I amuſe you with a Converſation on Flowers, when you are preparing to reap a Harveſt of Laurels?

Chevalier. But this Harveſt is not perpetual, and I ca judge by your Lordſhip's Example, that the Shade of Laurels and Flowers may be properly intermixed. We have a number of vacant Hours in the Country, and no Attention can employ them better than the Cultivation of Flowers.

Count. Your Opinion is perfectly juſt, my dear Chevalier, and I ſhall eſteem it a Pleaſure to preſent you with your firſt Rudiments on this Subject.

The Advantages arising from the Culture of Flowers.

'The Culture of Flowers is an Exerciſe
at can never be too much commended,
hen it is uſed as a Recreation, after any
mployments that are more neceſſary. It
niſhes our Houſes with delightful Orna-
ents, and ſupplies us with Accommodations that we may
are with others without any Detriment. And as the
aſte for Flowers, and the Pleaſure of diſcloſing them to the
iew of others, are almoſt inſeparable, we may conſider
eir Cultivation as an agreeable Band of Society. But
ey are equally charming in Solitude, and ſupply the Ab-
nce of Company to thoſe who are alone.

Chevalier. My Amuſement is highly dignified by theſe
articulars; but leſt your Lordſhip's Inſtructions ſhould
cape my Memory, I intend to commit them all to
riting.

Count. That will be a very proper Proceeding. How-
er, I ſhall not enter upon any little Particulars, but
ink it ſufficient to acquaint you with ſome of the firſt Prin-
ples; the reſt will grow familiar to you by Practice, i
hich every one is governed by his own Experience;
et us begin then with preparing the Plot for our Flowers.

Parterres.

As amiable as they are in themſelves,
e heighten their Agreeableneſs in the
anner we improve Diamonds. When
e intend to make theſe appear in their beſt Perfection,
e join the Advantage of a fine Situation to their natural
eauties, and cauſe them to be elegantly ſet. Flowers ne-
r appear to more advantage, than in the Borders and Com-
rtments of a regular Parterre. But inſtead of explain-
g to you the Nature of a Parterre, I ſhall only acquaint
ou, the Border is a long Bed of Earth which is carried
und the Parterre, and wherein you ſee ſuch a Variety of
owers. The Campartments are little Plantations, or In-
oſures of Box, formed into different Figures, of which
me Parterres are compoſed.

When the Plot of Ground, which is to be appropriated
Flowers, happens to be very ſmall; inſtead of encom-
aſſing the Partitions which divide it, with a Verge of
ox, or Turf, which would take up too much room, we
ontent ourſelves with a plain Border of Wood, painted
reen. The Propriety of this Expedient is always the

ſame, and we are diſcharged for twenty Years, from Cares and Expences of Reparation.

If we happen to poſſeſs a ſpacious Tract of Ground, chooſe that Part which is neareſt to the Body of Houſe, and trace out a Parterre, either in Embroide or plain Turf. This Parterre will be very agreeable the Eye, and may be ſo diſpoſed as to preſent a bea ful View to the Apartment, with Borders embelliſ with common Flowers, provided the Intermixture be p perly blended ; and the Regularity of its Figure will ſ fice, as an Ornament to the whole Place, when the Sea for Flowers is paſt.

Chevalier. I have known ſome Gentlemen extreme pleaſed with their Parterres, that repreſent their Arms, w their Supporters, in Box.

A Parterre of Embroidery.

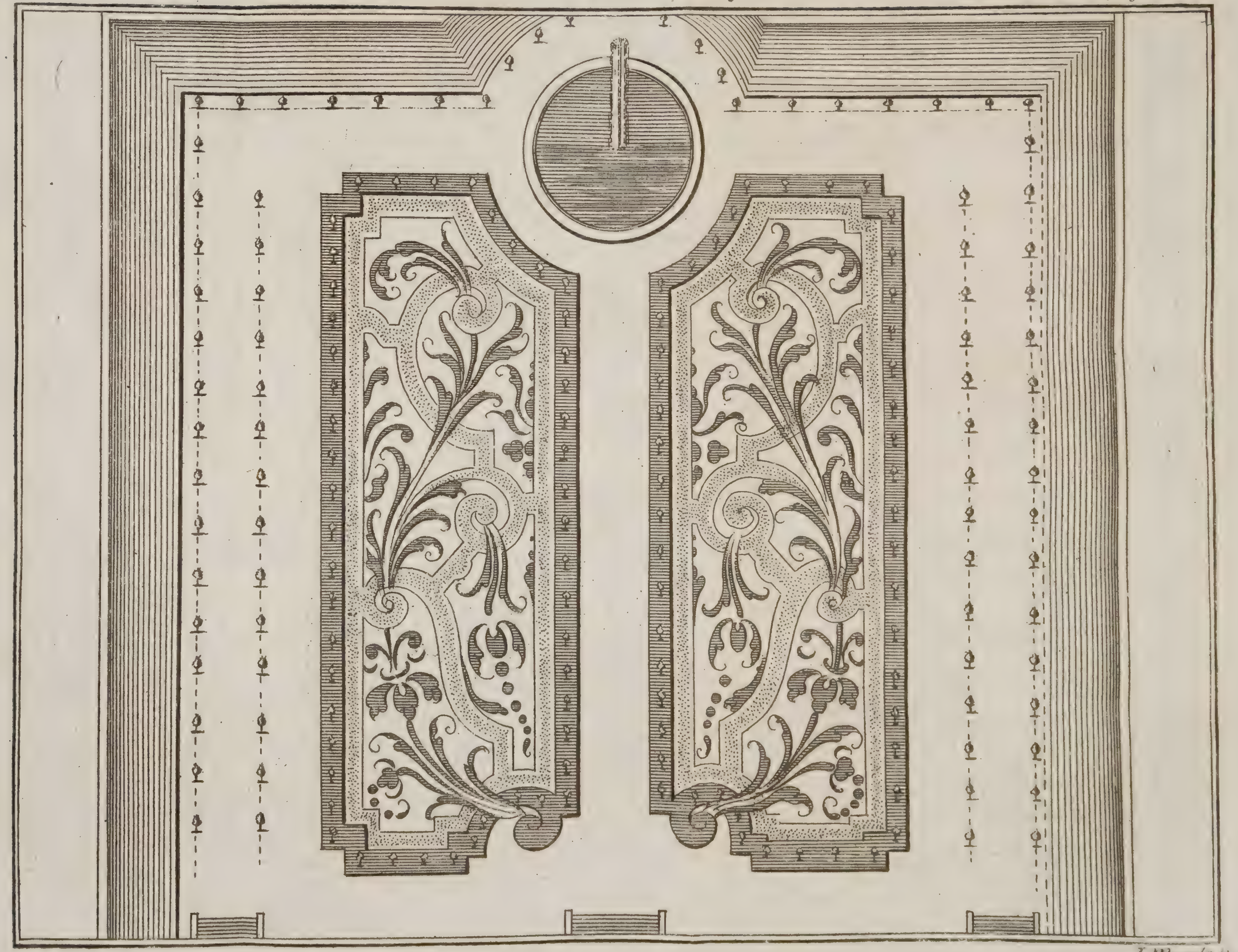
Count. All crouded Deſigns and Figures that are too mu compounded, have been long diſcontinu in Parterres ; for they are ſo many Lab rinths, in which the Eye of the Spectat is loſt. We grew ſenſible, by Degre that all real Beauty is inconſiſtent with Confuſion ; a we think, the *Gothic* Taſte is excluded from Parterres, well as from other Works, by a Moderation in the Uſe Ornaments.

The Extent of Ground intended to be laid out in Parterre, may be divided into ſeveral long Squares, or i to various triangular Pieces, correſponding with each oth Some Lines of Box, uſually accompanied with a Scr Turf, compoſe a flouriſh, a Palm-Branch, or ſome oth ſimple Bough, that appears eaſy to the Eye, and ſho from one end of the Square to the other. If the Plot very large, a Work of Turf may be drawn round t whole Embroidery, and ſeparated from it by a Trac with a Border to edge the Square. This neat Figure, whi is eaſily taken in at one View, and may be improved wi a covering of Sand of an amiable Colour, needs no A dition, but the Flowers in the Border; and theſe fe Objects will ſufficiently enrich a very large Plot. Y may obſerve all theſe Particulars in the Parterre before yo

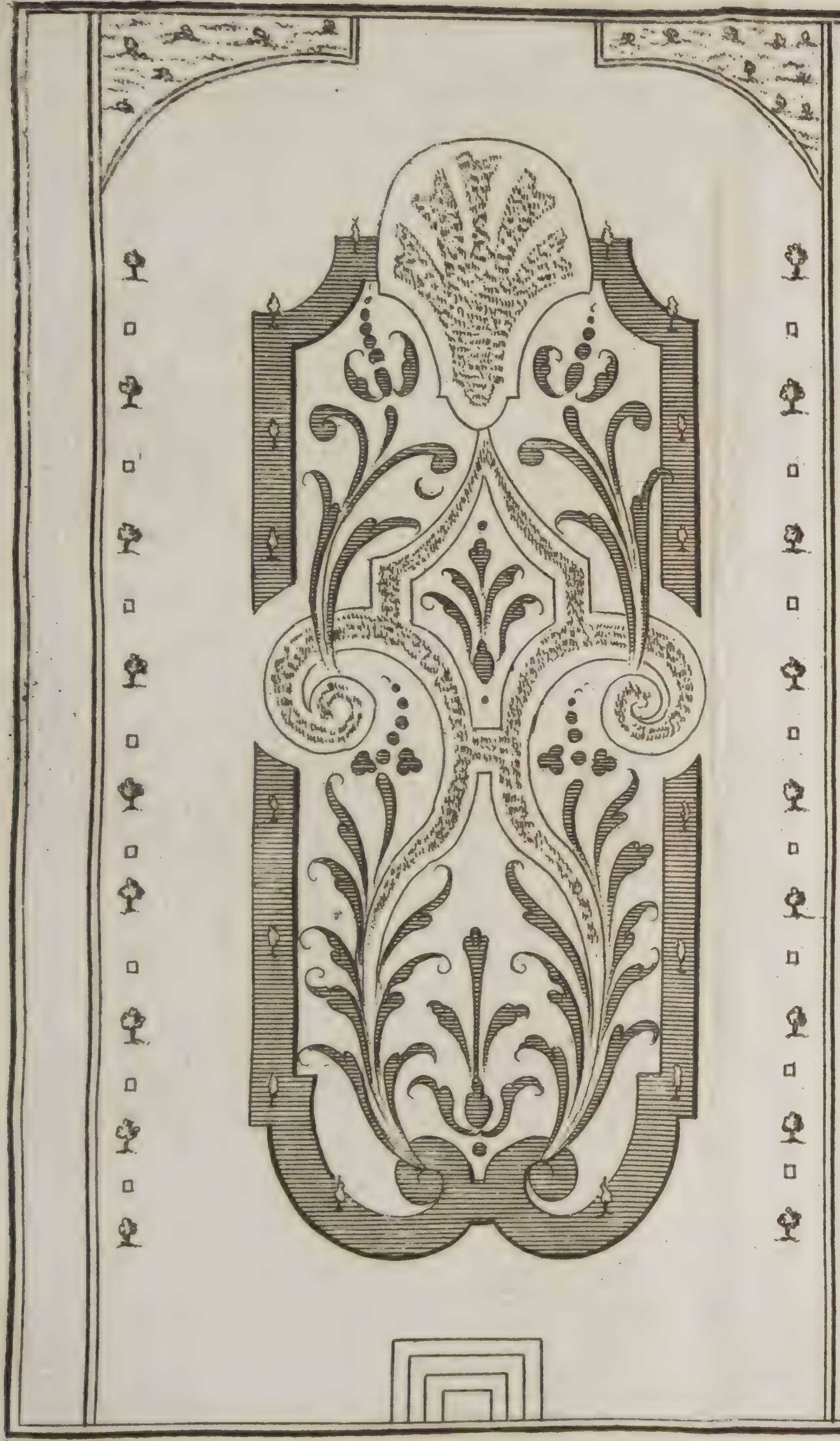
Chevalier. That which has been lately finiſhed, und the Window of your Lordſhip's Cloſet is entirely differen in its Form, and without any Embroidery.

A Parterre of Embroidery.

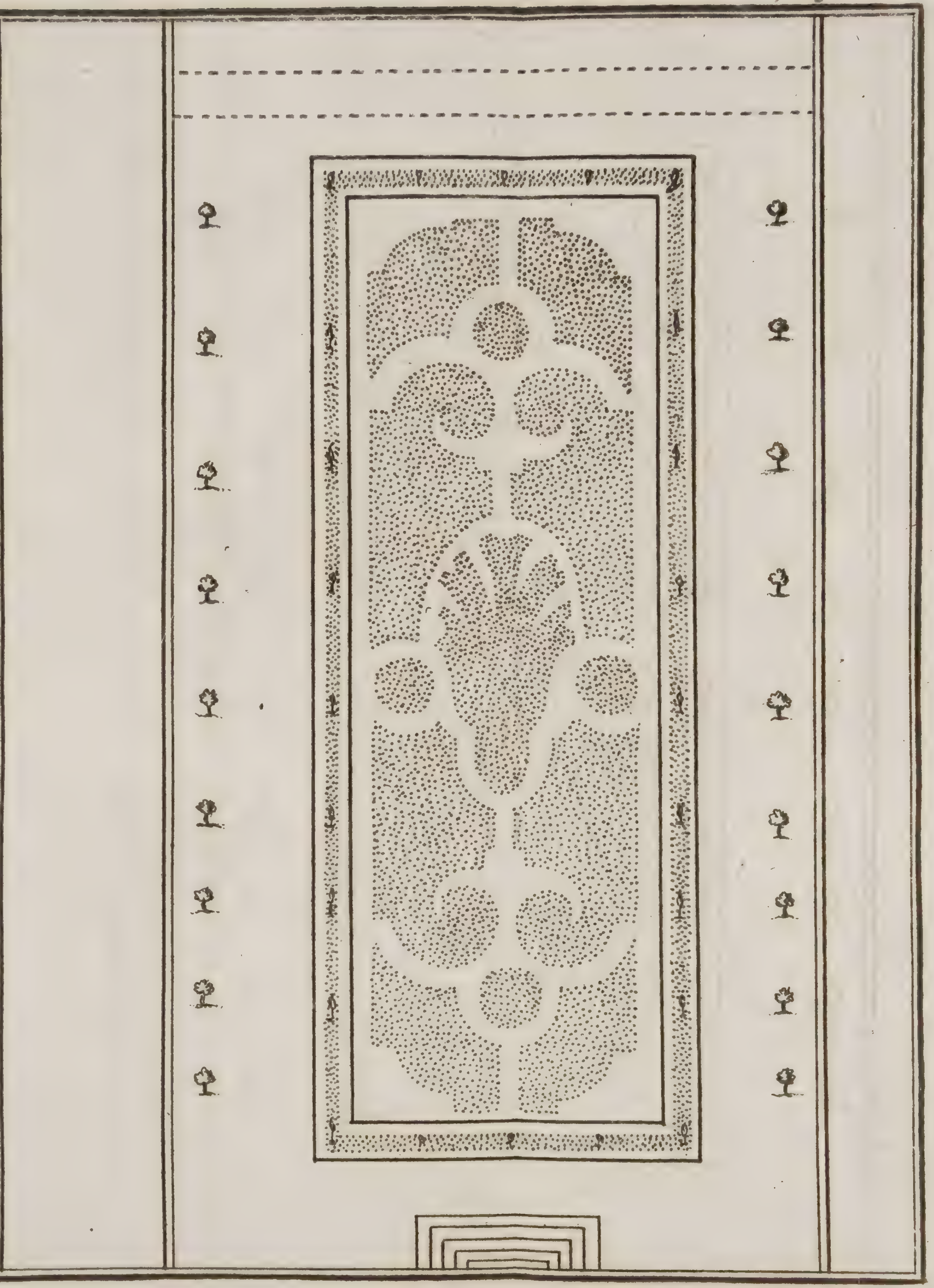
Plate 1 Vol. II page 26



I. Mynde ſc.



A Parterre
interrmix'd wth Embroidery & Turf



J Mynde Sc.

A Parterre
after the English manner
border'd with Verges of Turf

A Parterre of Turf.

Count. As noble and entertaining as the Simplicity of the firſt Method may appear, there are ſeveral Perſons of an Excellent Taſte, and the *Engliſh* Nation in particular, who give the Preference to a Parterre of Turf; which is often entirely plain, and without any Figure, but the long Square, with a Baſon in the Centre. The Space comprehended by theſe Squares is no more than a Ground of green Moſs, ſeparated from the Border, by a Path covered with Sand, or the Powder of burnt Bricks: And in order to adorn the Middle of the Border, inſtead of Flowers which are uſually planted there, it would be more agreeable to draw a Line of Turf, ſeparated from the two Borders of Box, by a double Path of Sand.

Chevalier. This long Line of Turf, carried on through the whole Extent of the Border, may perhaps be proper, but it certainly muſt appear very naked.

Count. Care is taken to prevent that diſagreeable Effect in this manner. A long the Line of Turf, and at regular Intervals of Diſtance, 'tis cuſtomary to raiſe ſeveral little Pyramids, of Ivy; between which, and upon Pedeſtals of Stone or Earth, caſed with Green, a Number of large Vaſes are placed, to receive in Panniers of Oſier ſeveral fine Cluſters of Dame's-Violets, Stock-Gilliflowers, Carnations, Crane's-Bill, Spaniſh-Jeſſamines, and other Flowers that vary according to the Seaſon.

Chevalier. I entirely declare for the *Engliſh* Taſte, and think this Arangement at once ſimple and magnificent.

Count. The Beauties of this Caſt are always more durable, becauſe they approach the neareſt to the Method and Taſte of Nature. This Parterre has likewiſe another Advantage: For as it requires but little tending, it is conſequently the better accommodated to the Country, where we have not always a Gardener, who has much Leiſure to employ in the Culture of Flowers. We find it very agreeable too in Town; for tho' this Parterre has a Variety of Ornaments, yet it frees us from the Neceſſity of renewing them perpetually, and is not ſubject to many little Inelegancies, which are almoſt inſeparable from Borders of Flowers.

Chevalier. I think I have ſeen Parterres of a third Species; I mean ſuch as are ornamented with Flouriſhes, or Shell-Work with an Intermixture of Turf.

Mixt Parterres, or Parterres in Compartments.

Count. In order to accommodate every Taſte, and thoſe Perſons in Particular who fancy that neither Beauty nor Deſign can ſubſiſt without Embroidery; a third Parterre has been invented, which is a Mixture of the two former, and comprehends ſome Strokes of Embroidery, with a Surface of Turf, ſhaped into a Trefoil, a Flouriſh, a Shell, or ſome other Ornament, they imagine moſt agreeable. Turf itſelf is not always the Furniture of this Plot; for it may be filled with Daiſies, China-Pinks, and Snow-Drops, which make a pleaſing Appearance, in their Seaſon of Bloom, by the Enamel of their Flowers, and through the reſt of the Year, by their Verdure. But the Embroideries and Compartments muſt be executed with great Delicacy, and conſtantly repaired by new Culture.

Chevalier. I give the preference to the Parterre of the ſecond Species.

Count. We find it the moſt agreeable of any.

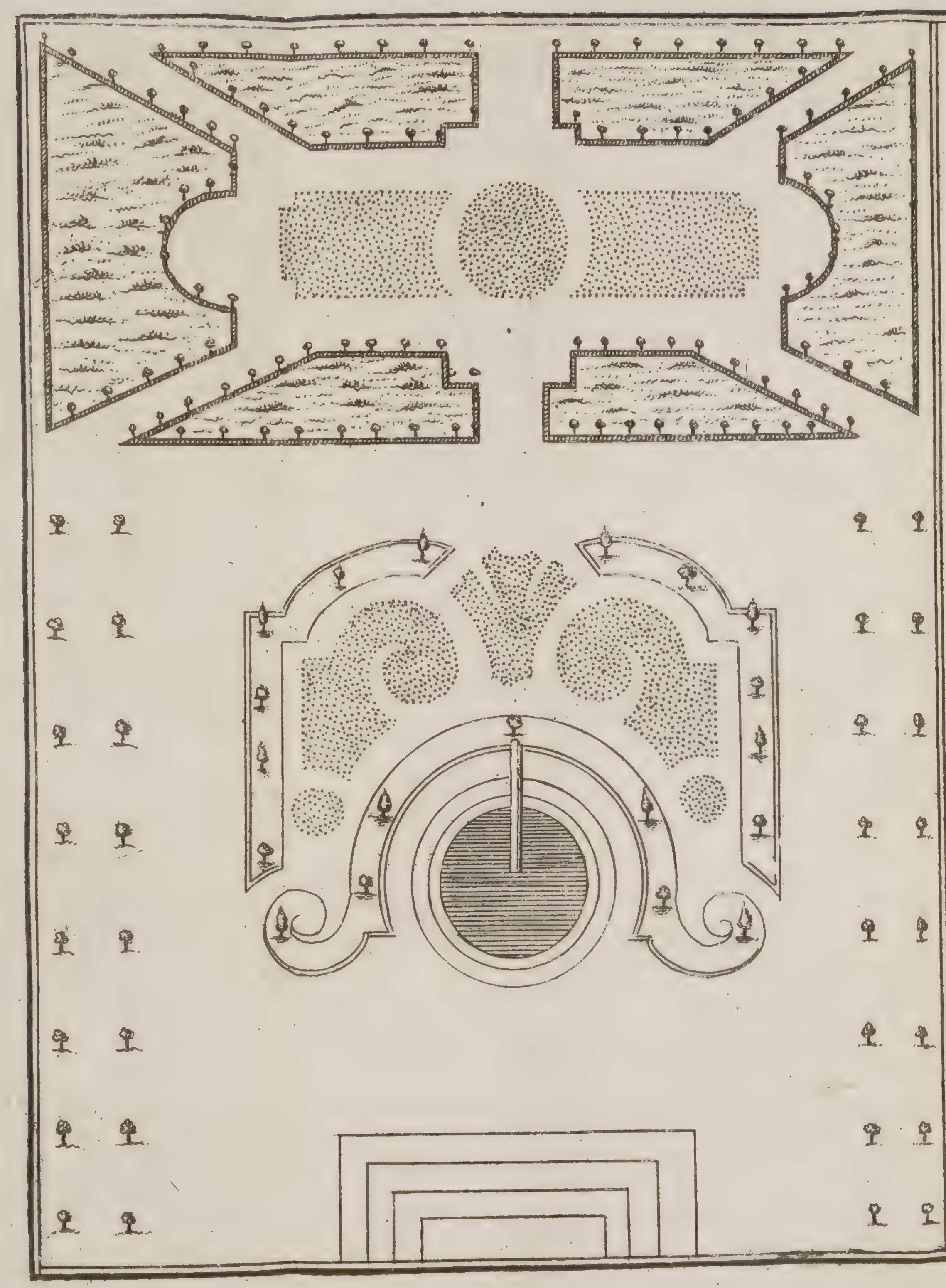
A Parterre in Cut-Work.

If you have a large Quantity of Flowers, and are curious to render the Enamel more lively, by ranging them near one another, your Parterre may be then form'd in Sections or Cut-Work, and you may divide your Plot into ſeveral ſquare or triangular Quarters round a Statue, a Baſon, or ſome other common Centre. You may likewiſe diſtribute into each Compartment an equal Number of Sections or Incloſures formed with Box, ſome ſquare, and others round, a third ſort, oval, and a fourth ſloping; in ſuch a Manner, that the whole may preſent a juſt and regular Appearance to the Eye. They are all ſeparated by little Paths, equal on every Side; and this Diſpoſition not only contributes to the Regularity of the Deſign, but, at the ſame time, facilitates the Acceſs of the Floriſt, to the Beauties he poſſeſſes.

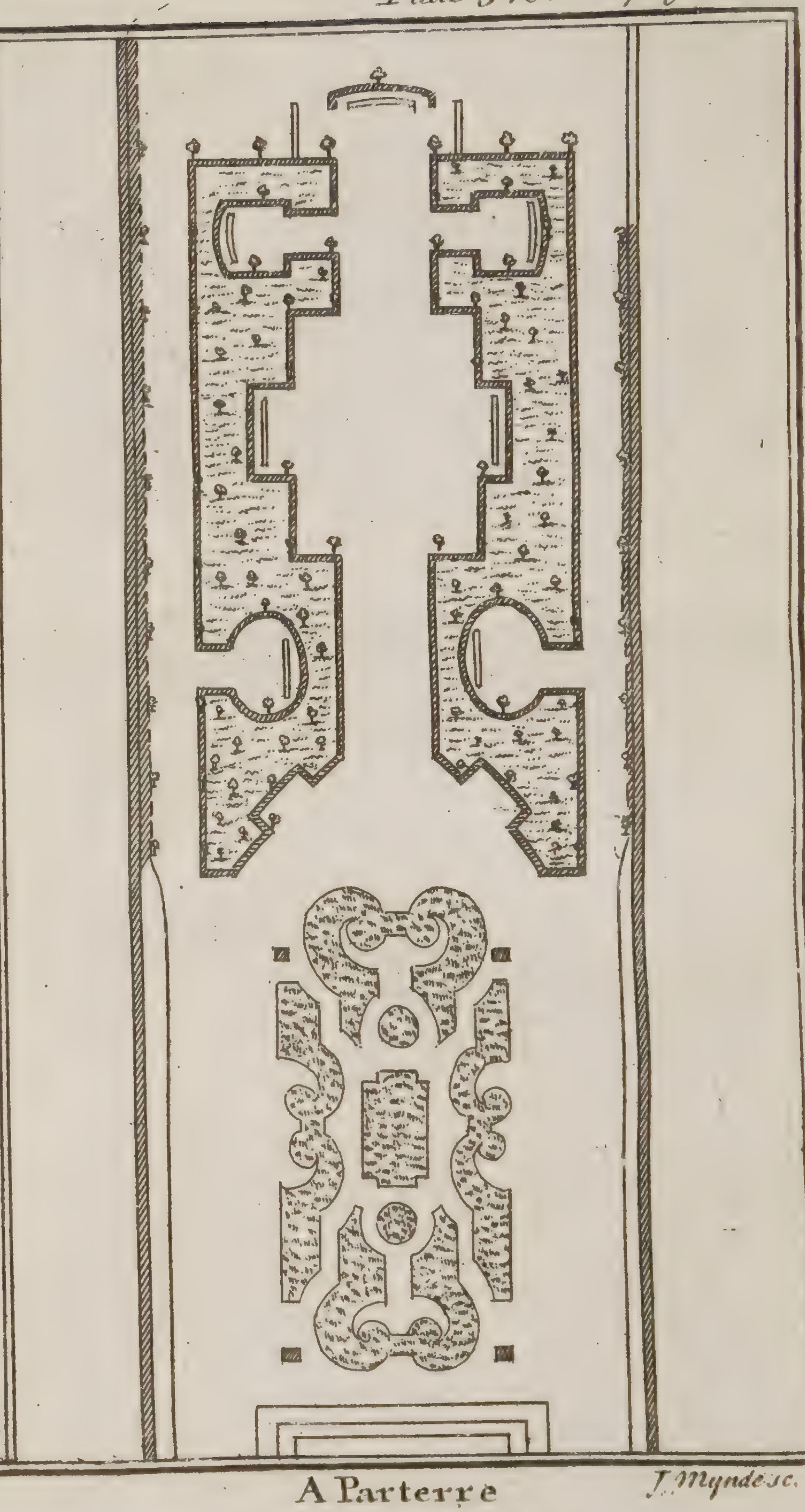
Chevalier. What are your Lordſhip's Sentiments of the various Windings we ſee in ſome Parterres? I am inclin'd to believe they are not agreeable to your Taſte.

Count. Inſtead of acquainting you with mine, which never preſcribes Rules to others, I ſhall only declare to you, that thoſe who are generally acknowledged to have a juſt Taſte, never amuſe themſelves with forming theſe little

Plate 3 Vol. II page 28



A mixt Parterre



A Parterre
in sections or Cutwork

J. Mynde sc.

little Figures, and if you will let this Point be decided by their Opinion, a Garden divided with Uniformity into ſeveral long Squares, bordered with painted Wood, preſents the moſt amiable and regular Appearance to the View.

Chevalier. I ſhould be glad to be informed why the Beds of Earth, in which the Flowers are planted, are raiſed higher than the Walks.

Count. If the Flowers be either diſpoſed along the Borders that edge the Embroidery, or planted either in Compartments, or Cut-Work; or if it be thought ſufficient to place them under the Windows, in long and ſeparate Beds, and without forming them into a Species of Parterre; the Earth ſhould always be raiſed toward the Middle, and carried down in a double Slope. This Diſpoſition gives a Flow to the Water, which would otherwiſe rot the Stems of the Plants, by continuing too long on a level Surface. This Eminence likewiſe diſengages all the Flowers, and enables them to riſe one above another, like the Ranks of an Amphitheatre.

A Theatre of Flowers.

Chevalier. The Prior has ſtill another Method; for, beſides the Flowers of his Parterre, he has a Number which he diſpoſes apart, on ſeveral Stages where they are more viſible.

Count. Thoſe who are curious, and eſpecially the profeſſed Floriſts, have recourſe to this Expedient, which gives them a more commodious View of their Plantation, and enables them to cultivate ſome favourite Flowers with the greater Freedom. This Diſpoſition is called a Theatre of Flowers, and conſiſts of ſeveral Ranks, or Steps of Wood, aſcending one behind another, by which means the Eye, as well as the Hand, may be extended to all Parts, without any Impediment. This Particular Structure is uſually reſerved for Auriculas, and Carnations; and as theſe Flowers require more Shelter from a hot Sun-ſhine, and Rains, than others; the Theatre, is always accompanied with a little Roof of Wood, or waxed Cloth, and is likewiſe placed at ſome Diſtance from the Wall, to give the Air a free Circulation around it: and in order to exclude Earwigs, Snails, and other Vermin, the Feet of the Stage that ſupports the Theatre, are placed in leaden Vaſes, which muſt always be full of Water: This Precaution will ſecure the Flowers from thoſe noxious Inſects, who will immediately retire from the Vaſes rather than ſwim through the Water, to make their Depredations on your Flowers.

A Pyramid of Flowers.

Chevalier. Some curious Perſons in the Neighbourhood have another kind of Theatre, which they call, *a Pyramid of Flowers.* When thoſe, which are moſt beautiful, have adorned the Parterre for ſome time, they cut them toward the Bottom of their Stems, and then place them in Vials on the Steps of a Pyramid, raiſed for that purpoſe, in the middle of their Halls; where they preſerve them a conſiderable time, by the aid of Water and Shade.

Count. This Invention may aſſemble, in one View, all the various Beauties that were ſcattered through the Parterre, and regale us with a new Scene of their Perfections.

Vaſes.

It is likewiſe uſual to provide Vaſes, or Pots, made of Earth, Braſs, Lead, or any other Subſtance, in order to beſtow new Ornaments of Flowers on the Parterres themſelves, as well as on low Walls, Terraſſes, and Balconies. Theſe Vaſes unfold their Flowers with an advantageous and noble Air, and facilitate their Cultivation, by enabling us to place them either in Shade or Sun-ſhine, as may be moſt proper and beſt ſuited to the Seaſon.

Chevalier. Is there not ſome other Advantage to be gain'd from the Pots which are capable of being removed where we pleaſe?

Count. What may that be?

Chevalier. We might place the Flowers as near to each other as we ſhould think fit, in order to diverſify the Colours of thoſe which are to ſpring from their Seeds; and poſſibly to preſerve the moſt amiable of the Tribe from any Intermixture or Variation, from Year to Year, by diſpoſing them apart from others.

Count. In what manner do you conceive, that one Flower makes any Diſcovery, or not, of its Neighbourhood to another?

Chevalier. An *Engliſh* Gentleman happened yeſterday to paſs this Way, and having heard ſome Account of your Lordſhip's Flowers, expreſſed an Inclination to ſee them. The Prior and myſelf, were much delighted while we entertained him; and he aſſured us, he was perſuaded that the Powders, which fall from the Tops of the Chives, are frequently wafted to ſome Diſtance, by the Motion of the Air; and that by their action on the Peſtil or Style of another Flower of the ſame Species, but of a different Colour; they impregnate ſome of its Seeds, and diffuſe a new Tincture into the Colours of the Flower, which ſprings from that Seed.

New Improvements, *&c.* by *Rich. Bradley*, Fellow of the Royal Society. Vol. I.

Count. This Obſervation may, in my Opinion, be juſtified by many ſurprizing Varieties, that are diſcovered every Year in the Flowers raiſed from the Seed of thoſe which are ranged together on a Theatre, or reared in the ſame Bed.

Chevalier. Our *Engliſh* Gentleman acquainted us with another Particular, which may poſſibly be very uſeful, were the Experiment certain. He aſſured us, that when he had cut the Chives of ſeveral Flowers before their firſt Opening, he placed thoſe Flowers at a Diſtance from the reſt, and had never obſerved them to produce any Seed; but added, that when he had cut the Chives of ſome others, and left them in the common Bed with their Companions, he found them all impregnated with Seeds, which, undoubtedly, were imparted by the neighbouring Flowers. He likewiſe obſerved, that after he had cut the Chives of a Flower when it was firſt unfolded, he ſcattered on the Heart or Style the Powder of another Flower of the ſame Species, that was fully blown and which created a remarkable Change in the Flower he had deprived of its Seed. But he ſurpriſed us extremely when he added, that the ſame Experiment made on Flowers, which entirely differed from each other in their Nature and Qualities produced Seeds; and that the Flowers, which ſprung from them, were compoſed of thoſe different Qualities: but he aſſured us that theſe new Flowers, which had no Similitude to any others he had ever ſeen before, were unproductive of any Seed the next Year, and not perpetuated like the reſt.

Count. Were this Fact certain, it would have ſome Correſpondence with the Birth and Sterility of Mules, wh may be conſidered by us as Monſters, becauſe they ar the Offſpring of Animals, who not only differ in Species but likewiſe in Nature. But repeated Experiments muſ inform us of the Conſequences and Practice that may be derived from a clear Knowledge of the Structure o Flowers.

Chevalier. I intend to make all theſe Experiments with as much Circumſpection as poſſible.

Count. I am pleaſed with your Curioſity: Be ſure to cut a Number of Chives, and inform yourſelf by all the Trials you can invent, neither your Time nor your Money will ſuſtain any Riſk by this Proceeding. I think I have ſome Experience in the Management of Gardens, but ſhall be charmed to receive any Information from you. And though I am far from reſigning my Judgment to the firſt plauſible Idea, preſented to me by other Perſons, yet I think it a criminal Preſumption to be ſo tenacious of one's firſt Knowledge, as to diſlike any mention of new Diſcoveries. We are ſtill in the Infancy of Arts.

Chevalier. My *Engliſh* Obſerver has excited my Curioſity; but at preſent, I am moſt attentive to the common Method of raiſing Flowers.

The Preparation of the Earths.

Count. They require Attentions of two kinds; the one are common to all, and the other peculiar to each Species. The firſt, which we will, at preſent, conſider, are the Preparation of the Soil, the Manner of multiplying Flowers by the Seed, and the Nurture of the Plant.

Our firſt Care is to provide early in the Seaſon a Quantity of pliant and vigorous Earth, which we incorporate with that which is light and ſandy, and improve it with an Intermixture of Mould, which is only Compoſt, entirely rotten, to which it may be very advantageous to add a Proportion of Aſhes. Theſe Earths ſhould be paſt, in equal Portions, either through a Hurdle, or an Iron Sieve; or we may let the rich Earth predominate in one Heap, the thin Soil, or likewiſe the Mould, in the other

Parcels. It will be proper to let theſe Earths lie uncultivated, for the ſpace of one Winter at leaſt, that they may be entirely blended together; but there are ſeveral Floriſts, who ſuffer them to continue two Years, or even a longer Time in this manner. You are ſenſible that all Flowers ſpring either from Plants that have Roots, or from thoſe that are bulbous, which are ſuch as are produced from a Body like an Onion. The rich Earth is uſually appropriated to the Roots, and that which is thin to the Bulbs.

But it is not ſufficient to have made the firſt Compoſition of theſe Ingredients, for as Plants are continually attracting the Juices of the Earth, theſe would ſoon be exhauſted, were not that frequently recruited with the proper Mixtures, and applied from time to time to the Plants. Care ſhould likewiſe be taken not to open the Mould too much, when the Plant has a Root; but if it ſprings from a Bulb, it will be neceſſary to raiſe it entirely out of the Earth, once in three Years, at leaſt.

The Neceſſity for ſowing.

The ſecond Method, which is common to all, or the Generality of Flowers, is to multiply them by Seed; though this Effect may be obtained by other Means. Seeds are infallible Expedients for a plentiful Production, as well as for Variety and repeated Novelties.

When Gardening began to be greatly improved in the laſt Reign, which revived a general Elegancy of Taſte, we were ſupplied from *Flanders* and *Holland*, with thoſe Flowers that were moſt amiable and uncommon. Several curious Perſons in the *Low-Countries* frequently diſcovered new Species in every Claſs of Flowers, by their Practice of ſowing; and indeed they were the only People by whom this Practice was obſerved, poſſibly becauſe we were not diſpoſed to purſue that Method, or could not eaſily accommodate our natural Impatience to the ſlow and diſtant Events of Experiments. However, we at laſt grew diſſatisfied with purchaſing, at a great Expence, from Foreigners, thoſe Beauties, and diverſified Novelties, which our own Soil was capable of producing. The Floriſts of *Paris*, and ſome Provinces, eſpecially *Normandy*, and *Caen* in particular, began to imitate the *Flemings*, in their manner of ſowing, and even in larger Quantities; which, in Conjunction with the benign Temper of our Climate, furniſhed us with Riches much ſuperior to thoſe we received from the *Netherlands*. We no longer needed the Aſſiſtance of Foreigners, and they frequently made their Court to us.

The Seed.

The Seeds of Flowers ſhould be gather'd and kept dry. When the Stems that ſupport them begin to aſſume a yellow Hue, or when the Seeds may be judged to be ſufficiently ripe, it is uſual to cut the Tops of the Stems, and to leave the Seeds in the natural Coats that encloſe them. They are expoſed for ſeveral Days in a warm Sunſhine, which hardens the Skin that enfolds the Seeds, and contributes to their better Preſervation.

The Proper Seaſon for Sowing.

The Seeds are ſown either at the Beginning of Spring that the Plants may be rendered capable of ſuſtaining themſelves, during the dry Seaſon of Summer; or they are ſown in *Auguſt* and *September*, that they may have ſufficient time to be fortified againſt the Froſt. But as each Seed has its peculiar Seaſon wherein it proves moſt ſucceſsful, if you ſhould happen to be uncertain of the proper time, or have Foreign Seeds to ſet, and with whoſe Cultivation you are unacquainted, it will be proper to diſtribute them into three Parcels, the firſt of which you may ſow in Spring, the ſecond in Summer, and the third in Autumn, by which means you may be certain to enjoy the Production you deſire.

The Seed may be planted either in a Bed, when the Compoſt has loſt its Heat; or in larger Plots of Earth diſpoſed into Tracks, ſeparated from each other by a Breadth of four or five Fingers; or in flat and portable Boxes, in whoſe Bottoms ſeveral Apertures ſhould be made with an Augre; and theſe are to be covered with an Inch depth of Pit-Coal, or any other porous Subſtance.

Chevalier. This Preparation is apparently intended to facilitate the Efflux of the Water.

Count. It would chill the whole Maſs, were it to remain there too long.

Chevalier. To what particular Seeds are thoſe portable Boxes appropriated?

Count. To thoſe whoſe Culture is delicate, or to ſuch as are moſt in our Eſtimation, theſe little Boxes are commodious Cradles for the vegetable Infancy, which by this Expedient may be diſpoſed either in Sunſhine or Shade, and may be viſited by the Dew, or covered from it, as Occaſion requires.

The Earth of theſe Boxes cannot be too looſe and penetrable; for as the Flowers and their Roots require a light Soil, it muſt be evident, that a hard and compact Earth would be very pernicious to the delicate Fibres that ſhoot from the Seed.

The Seeds are ſown almoſt even with the Rim of the Box, and are covered with half a Finger's depth of Earth ſhook through a Sieve. A thin Surface of Straw will likewiſe be neceſſary to prevent the Seeds from being carried away by the Water, and to preſerve them from the immoderate Heats, which would otherwiſe rot or ſcorch them, as well as diſſipate the Juices, by which they are nouriſhed.

Chevalier. But what Advantages can be derived from ſuch a Multitude of Flowers as ſpring from Seeds? Their Number ſeems a little perplexing.

Count. The very Circumſtance of their being ſo numerous, enables us to ſelect the fineſt of each Claſs in Quantities ſufficient for our Purpoſe; and when we have replanted thoſe Species which are moſt vigorous, and in the greateſt Eſteem, we may tend them agreeably to their particular Conſtitutions, or the Exigence of the Seaſons. In proportion to their Delicacy we cover them more or leſs in the Winter, with Mats ſupported by Wooden Forks or Hoops, or elſe with common Straw or dry Compoſt. The Refreſhments we afford them muſt correſpond with the Dryneſs of the Seaſon, and we ſhould never water them with a Veſſel that has only one Spout, which will be injurious to the Plant, as the Stream flows with more Violence than when it paſſes through the Ball of a Watering-Pot that is perforated with ſeveral Holes, which diſtribute the Water into a Variety of little Streams, and render it a gentle Dew, whoſe Humidity at once refreſhes the Plant, and all the adjacent Earth. We ſhould likewiſe be careful to viſit the young Plants from time to time, in order to free them as well from Snails and other Vermin, that gnaw them, as alſo from rotten or diſtempered Leaves which are apt to communicate their Infection to the Heart.

When it becomes proper to place them in Pots, the opening, at the bottom of thoſe Veſſels, ſhould be covered in ſuch a manner, that the Water may have a free Paſſage, at the ſame time that all Worms are excluded. In the Seaſons of great Rains, Hail or Storms, it will be neceſſary to lay the Pots with their Sides to the Earth, and their Bottoms turned to the Wind.

Chevalier. This Precaution will ſecure the tender Plants from many Injuries: But I generally ſee the Pots ſunk into the Earth; ſo that it ſhould ſeem needleſs to tranſplant the Seed into thoſe Veſſels.

Count. They are ſometimes ſunk in a Bed, that they may be cheriſhed with a proper Warmth; it is likewiſe cuſtomary to plunge them in the common Earth, that they may imbibe a certain Spirit which ſteams from the Ground, and is finely accommodated to Vegetation. They are afterward removed into the Shade, by which Expedient we are enabled to manage the Plants as we pleaſe, and may eaſily afford each Individual the Aſſiſtance it requires.

As to any other Attentions that may be neceſſary in the Culture of Flowers, you may inform yourſelf in this Place of all you deſire to know. The Counteſs is extremely fond of theſe beautiful Productions, and I muſt not deprive her of the Pleaſure of entertaining you on that Subject.

THE CULTURE OF FLOWERS.

DIALOGUE III.

The CHEVALIER. *The* PRIOR. *The* COUNTESS.

Counteſs. THE Chevalier has choſen the Spring and our part of the Country, for his Study of Nature; we muſt each of us therefore endeavour to contribute to his Inſtruction. My Province is the Care of Flowers, and I would willingly enjoy them thro' all the Seaſons of the Year, in the Parterre as well as in my Apartments, and all my Deſerts; and I muſt confeſs, that ſince I amuſed myſelf with their Cultivation, my Houſe appears much more agreeable than it did before. I am ſenſible by Experience, that gloomy Diſpoſitions and undelightful Ideas are brighten'd into Gaiety and Joy by the preſence of Flowers. The Sight and Fragrance of one Jonquil is ſufficient to diſſipate a melancholy Caſt of Mind; and it is hardly poſſible to aſſume an Air of Diſſatisfaction near a Cluſter of Jeſſamine and Roſes. Sadneſs itſelf diſappears at the view of ſuch Objects as theſe. I have diſtributed Flowers into every part of this Retreat, and have an infinite Pleaſure in cul vating the moſt amiable of each Kind. This, Sir, is m Philoſophy ; and tho' its Aſpect may be ſomething ruſtic it never fails to amuſe me, and you are ſenſible it is not a together inſignificant. I will, acquaint you if you pleaſ with three or four of its Articles, ſuch as the Auricula, th Anemone, the Ranunculus, and the Carnation. The Pri will inſtruct us in the Cultivation of Tulips, but can yo prevail upon yourſelf, Sir, to be contented with this Ente tainment.

Chevalier. Contented, Madam? I really think it th moſt charming Philoſophy in the World, and none can eve complain that it leads them into thorny Paths.

Prior. The moſt painful Philoſophy would never di pleaſe me, if its effects were always as valuable as a ſingl Tulip.

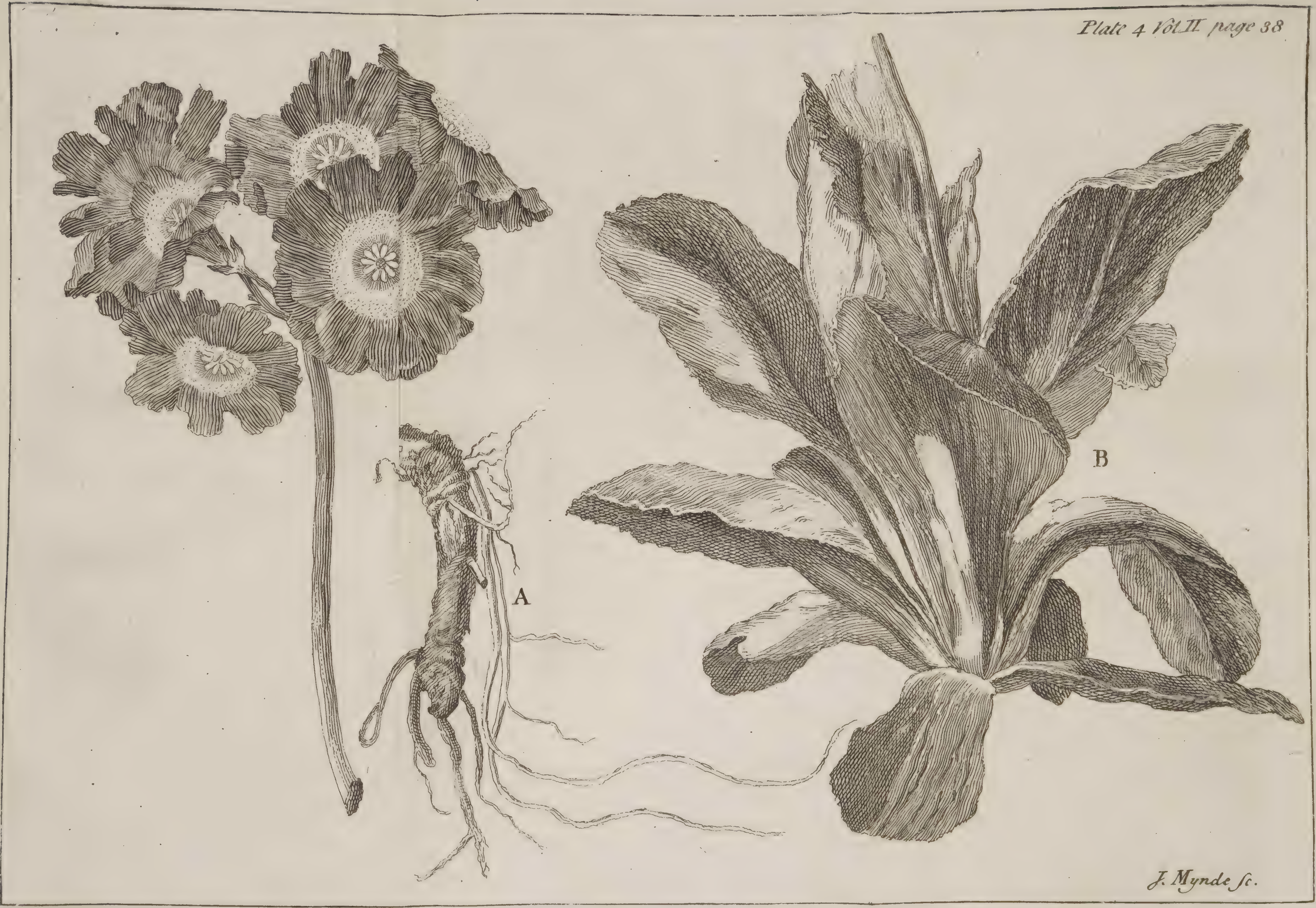
The Auricula, or Bear's Ear.

Counteſs. Let us begin with Auriculas We have here ſome of the Plants which produce thoſe Flowers, and their View will enable us to underſtand them. This Flower has ſeveral Qualities which entitle it to our Eſteem. We admire the Vivacity of its Colours, the Agreeableneſs of its Perfume, the Variety of its Kinds and the Duration of its Cluſters. And tho' the fineſt of the Species diſappear before the cloſe o Spring, here are ſome that ſtill preſerve an engaging Aſpect ; and there are others which even continue to the Summer Seaſon. The Prior a few days ago acquainted us with the Hiſtory of this Flower ; but the Country whence it originally came has eſcaped my Memory.

The Hiſtory of the Auricula.

Prior. The Auricula is a Native of the *Alps*, tho' ſeveral Perſons believe it to be a Product of *France*, and aſſure us they have diſcover'd great Numbers of its Plants in our Meadows. They add, that ſome *Flemiſh* Merchants, delighted with the Luſtre and Fragrance of theſe ſpontaneous Flowers, which they obſerved in their Travels, tranſplanted ſeveral of them to *Liſle* in *Flanders*, and were very careful of all thoſe Productions that were moſt beautiful. It is not eaſy to be imagined, how much this wild and neglected Flower was diverſified and render'd perfect by a due Cultivation.

Counteſs. It return'd from *Liſle*, to its Native Land, in all the Charms of Novelty, and we afforded it a favourable Reception,



The Auricula Urſi or Bear's Ear with its Root A. And green Foliage B. that encompaſses the Flower.

Reception, not only as it had the Air of a Foreigner, but becauſe it was amiable in the utmoſt Perfection.

Chevalier. I ſhould be glad to know what Qualities are neceſſary to render it complete.

The Qualities of a fine Auricula.

Counteſs. We think it moſt agreeable when it enjoys a ſtrong and ſubſtantial Stem; and when the Number of its Bells, which riſe on that Stem, are large and diffuſed into a graceful Cluſter, without inclining too much to the Earth.

Prior. It appears in that defective Poſition, as you may obſerve in this Plant before us, when the Pedicles which are the little Footſtalks that ſuſtain the flowery Bells, are either too long, or too ſlender.

Counteſs. The Flowers ſhould likewiſe be large, well tiſſued, and regular in their Forms. The Leaves of each ſhould be very ſmooth, and their Colours of a lively Glow. The Chives ſhould not ſhrink to the Bottom of the Vaſe, but ought to be diſpoſed around its Opening, in the form of a little Sun. They are very defective when the Piſtil becomes viſible, and the Chives are conceal'd. The Eye, which adorns the Bottom of each Flower-Cup, ſhould be exactly rounded, unleſs it happens to be wrought into a perfect Star, which is not diſagreeable; but it ought in particular to be large and white, or at leaſt as clear as poſſible.

Chevalier. Are not theſe a Set of Modes that are variable? Perhaps the Flower may hereafter be thought more agreeable, were the Piſtil to appear inſtead of the Chives; and it may poſſibly be eſteemed more pleaſing in proportion to the Smallneſs of the Eye, and the Moderation of its unfolding Colours.

Counteſs. That Suſpicion has but little Probability. The Chives ſhould riſe from the Bottom to prevent the Appearance of a vacant Space, that will always disfigure the Flower: The Eye ſhould likewiſe be large and clear, to give a Luſtre to the prevailing Colour.

Chevalier. Are not the Stripes preferr'd to ſuch Colours as are not varied with any Intermixture?

Counteſs. They were formerly in much greater Eſteem than they are at preſent, but they are found by Experience to be leaſt durable. The Stripe frequently drinks up all the Colour, by enlarging its Dimenſions from year to year. The unblended Colours are more valued when they are ſtrong and radiant. Thoſe that imitate the Gloſs of Satin and Velvet have the firſt Rank allotted them by the Curious. A few Irregularities of Growth give them an agreeable Variety; you may obſerve ſome, whoſe Cups riſe one above another, in two or three Stages; but this is rather an imperfect Arrangement, than any real Beauty.

Chevalier. Do not the Auriculas require a peculiar Soil and Cultivation?

Prior. It is certainly a voracious Plant, and muſt be rear'd in a ſtrong Earth intermixed with Cow-Dung, to render it ſoft and oily; this Earth ſhould likewiſe have a proportion of Horſe-Dung, or Sand, to make it light and pliant. The Flower loves a Freſhneſs of Air, and cannot long ſubſiſt in the Sunſhine, eſpecially at Noon, unleſs it be in the Winter-Seaſon.

Beſide the Method of raiſing it from Seed it may be multiplied by Offsets; or in other Words, we may ſeparate and tranſplant the little Shoots that ſpring from the principal Stem. Its Root, which is a kind of a Turnip, may be ſafely cut, when we cannot otherwiſe diſengage from it the little Fibres, or Roots, that are neceſſary to each Offset. When we have recourſe to this Operation great Care muſt be taken of the Buds in the main Stem, which are the Hopes of the ſucceeding Years; and when we tranſplant this Stem, with its Shoots, the Fibre which connects the Root with the Stem muſt be always raiſed above the Earth.

The Anemone.

Counteſs. Let us now proceed to Anemones, for tho' their Seaſon be far advanced, we have ſeveral of theſe Flowers that are ſtill very amiable. They are ſatisfied with a light and ſandy Soil, enriched with a Mixture of Compoſt: I don't find that our People afford them any other Preparations; and if they are but ſhelter'd from immoderate Heats and Colds, they generally thrive in a very agreeable manner.

Chevalier. It is really an inchanting Flower, but I could be glad to know why it charms me to ſuch a degree?

The Qualities of a fine Anemone.

Counteſs. Its Beauty reſults from the juſt Symmetry of all the Parts that compoſe it. The green Leaves that ſurround it without ſhould be low, thick ſet, and finely cut; the Stem ought to be ſtrong, in order to ſuſtain the Flower, without bending under the Weight; the Head muſt elegantly rounded, and the Colours bold and radiant. All faint Hues in general are rejected. The large Leaves that unfold the outward Surface of the Flower, and are called the Robe, ſhould neither be ſtrait nor pointed, but round and ſpreading. The Tufts of ſmall Leaves, that cover all the Flower within, ought to be formed into a Dome, by gently bending toward the Heart. The larger theſe Leaves appear, the more graceful they render the Flower; but when they happen to be ſharp and narrow, the Anemone is diſregarded, and degenerates into a Thiſtle. The ſlender Band at the Heart ought to differ in its Tincture from theſe Leaves, and ſhould appear but little, or rather not at all, leſt it occaſion a Swelling and it muſt never riſe higher than the leafy Turf. When any ſuch Swelling is created, and if by unfolding itſelf it diſcloſes either the Seeds, or the Tops that cover them, the Anemone is deſtroyed; for it then begins to diveſt itſelf from Year to Year of its inward Leaves: to whoſe Number and Subſtantialneſs it owes its chief Beauty.

It is not ſufficient to be acquainted with fine Anemones, but it likewiſe requires Judgment, to form a beautiful Bed of theſe Flowers; in which Particular two Precautions are neceſſary. In the firſt place, we muſt give them a proper Intermixture, by diſpoſing the Flame-Colours after the Carnation; the white, the Violet-Hues, and the Bizarrs, ſhould next appear and be ſucceeded by the brown, the ſtriped and clouded Dyes. We ſhould likewiſe be careful to cut off all all the weak Stalks that appear on each Plant; by which means, a copious Nouriſhment will be imparted to the reſt, and a thriving Vigour be diffuſed through the whole.

Prior. When the green Leaves that encompaſs the Flower begin to wither, the Roots ſhould yearly be raiſed out of the Earth, and replanted in Autumn, or *February*; but leſt any Accident ſhould ſcorch and deſtroy what was planted before the Winter Seaſon, it is uſual to preſerve in ſome dry Place a large number of theſe Roots which never ſhoot, in the Repoſitory, like Onions, and are even good when they have been kept two or three Years. Theſe, in the Spring, may ſupply the place of thoſe whoſe Bloom is over.

Cheval. I ſhall not forget this Precaution: But you ſpeak of Anemones, Sir, as if they only appeared in the Spring, and yet I have frequently ſeen them in Autumn.

Counteſs. One may eaſily ſecure an agreeable Succeſſion of theſe Flowers, through all the Seaſons of the Year. If we plant them in the different Months of Spring, we ſhall always have new ones, from the latter end of *June*, to the end of Summer; and thoſe we plant in *July* and *Auguſt*, will continue to embelliſh the cloſe of Autumn, and the very heart of Winter. This is a Pleaſure too eaſily attainable to be neglected.

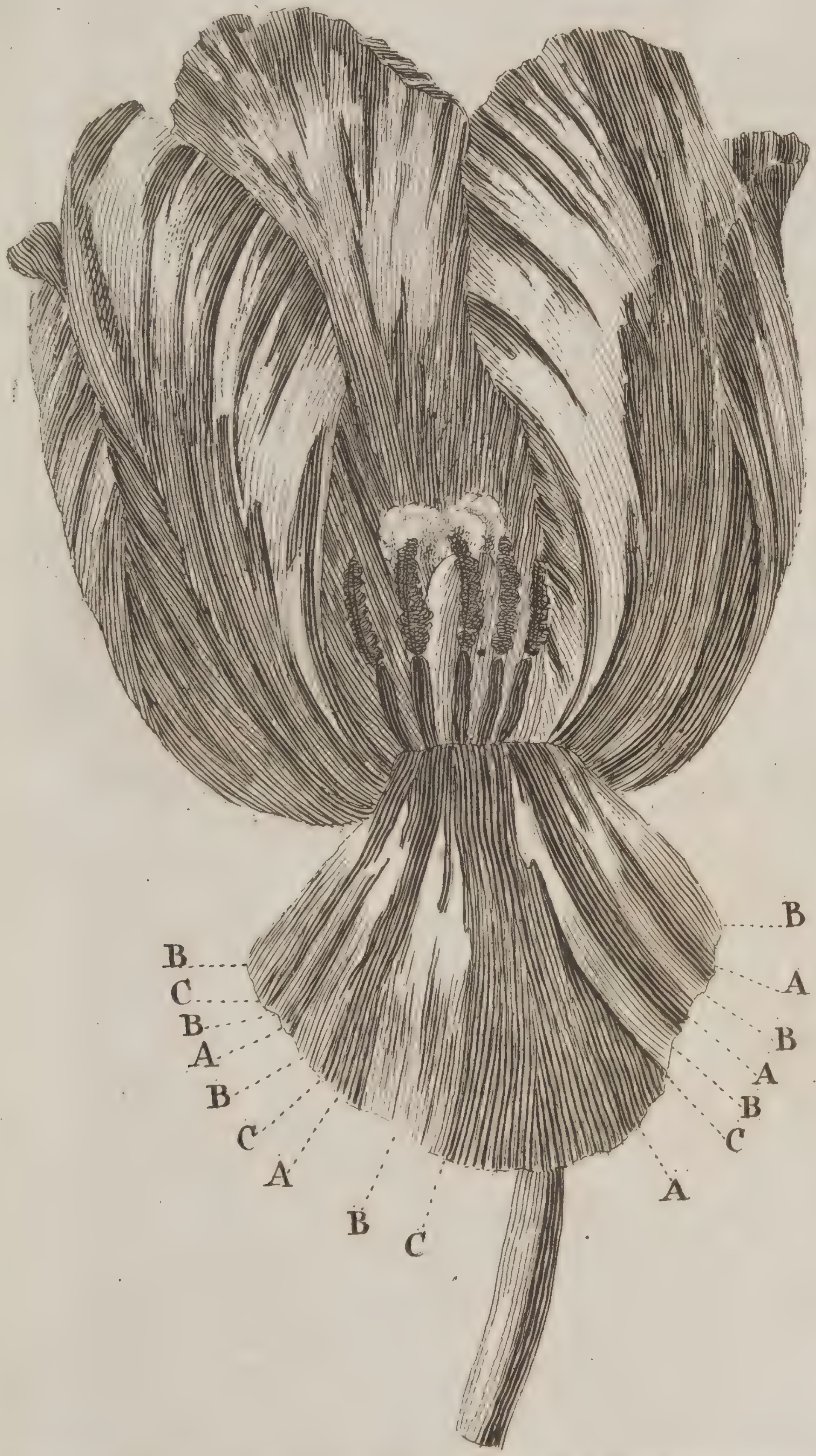
Cheval. Is it certain from whence we received the Anemone?

Prior. It has been conſtantly known among us, and is mention'd in all our old natural Hiſtories.

The Hiſtory of the Anemone. Fuſh Hiſt. Plant. Il. Paradiſo de Fiori.

Counteſs. The fineſt Anemones are not ſo ancient; and I have been told, that Monſieur *Bachelier*, a famous Floriſt of *Paris*, cauſed them to be brought to us from the *Eaſt-Indies*, about fourſcore Years ago. There are ſome People, who, when they acquire any agreeable Curioſity, have a pleaſure in communicating it to the Publick as much as poſſible; This is an Inſtance of the nobleſt Diſpoſition, and the Chevalier will undoubtedly be diſtinguiſhed by it. But there are others who poſſeſs a Flower, or a Fruit, with as much Avarice as ſome People hoard up Money; which they can never beſtow on others, without thinking it loſt to themſelves. This might poſſibly have been the Character of Monſieur *Bachelier*, for he lived ten Years without imparting, to any Perſon, the leaſt Fibre of the double Anemones, or one Seed of the ſingle Flowers. A Counſellor of the Parliament who was diſpleaſed to ſee one Man engroſs a Benefit that was qualified by Nature to be common, made him a Viſit at his Seat; and as he paſt by his Anemones that were then in Seed, he artfully let his Robe fall upon the Down of the Flowers, and it ſwept off ſeveral of the little Grains. His Servant who had been inſtructed how to act, immediately caught up the Robe, and folded it over the Seeds that were faſtened to it. The next Year, the Counſellor ſhared the Produce of his innocent Theft among his Friends, and by their Agency imparted it to all *Europe*.

Chevalier. The Anemones ſuſtain ſome Diſadvantage from that Bed of Tulips.



I.Mynde sculp.

The Tulip.

A. *The predominant colour.*
B. *The variegated stripes,*
C. *The black rays, which facilitate the*

The Anemone.

Counteſs. The Form of the Anemone is more delicate, but the Tulip eclipſes it by the Luſtre of its Colours; and in this Particular it may juſtly be called the Queen of Flowers. The Prior has amuſed himſelf with their Cultivation, and is better acquainted with them than myſelf.

The Tulip.

Chevalier. Here are ſeveral diſpoſed into Beds apart from the reſt: Are they ſeparated in this manner becauſe they are not ſo beautiful as the others?

Prior. Thoſe Beds are the Nurſery, and the Flowers they contain are called the Colours.

Chevalier. I am entirely unacquainted with that Term; and muſt intreat you, Sir, to favour me with its Explanation.

Prior. It is this. A Tulip may be multiplied either by its Seed, or elſe by its Offsets. The Seed produces a little coated Root like an Onion, which muſt be replanted at the end of two Years, but it never blows till the Expiration of five or ſix. Its Production ſeems at firſt contemptible and indelicate, for it is only a large Flower tinged with gray, a Violet blue, or ſome other faint and gloomy Colour, and it riſes on a monſtrous Stem: But theſe Colours are afterward improved in a ſurprizing Manner, and will gradually unfold a ſplendid Variety. The Tulips that ſpring from the Seed are called the Colours *, till they are finely marked with ſome Stripe of a new Tincture. Thoſe we receive from *Flanders* are diſtinguiſhed by the Name of Wands, on account of the Strength and Loftineſs of their Stem.

Colours.

Tulips raiſed from Seed.

When they have been diſearth'd and replanted for ſeveral ſucceſſive Years, the Tulips produced from Seed begin to break the Stripes, and are then called *Conqueſts*, or more uſually *Chances*, becauſe they are Beauties on whoſe Continuance we can never depend with any Certainty. A Series of Years, a Thinneſs of Soil, and repeated Tranſplantations gradually change, or ſully the predominant Colour. The Stripes therefore may be conſidered not as a Diſtemper, but rather as a kind of Weakneſs impart-

Chances.

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* They are called Breeders by our *Engliſh* Floriſts.

ed to the Plant, in Proportion as the Flow of Sap is more or leſs delicate: And this Effect correſponds, in a great meaſure, with the white and gray that alter the natural Colour of our Hair, at the Approach of old Age. There are ſome Heads, on which this Change has no unamiable Appearance; and it is frequently attended with peculiar Graces.

Offsets. The ſecond Method of multiplying Tulips is by Offsets, which are little coated Roots, that ſpring from the large one, and ſhould yearly be ſeparated from it. Thoſe Plants whoſe Roots reſemble an Onion, are commonly perpetuated by Offsets of this nature, which may be conſidered as the younger or collateral Branches of the Parent Root: And while this exhauſts its Vigour, and diveſts itſelf of all its Juices for the Nouriſhment of the Flower, the Offset that is ſtrongeſt, and moſt advanced, becomes the principal Root; and when we raiſe it out of the Earth, 'tis cuſtomary to diſengage it from the others, which, when they are afterward replanted, will produce Flowers the ſecond or third Year.

Counteſs. I think, Sir, you enable me to account for an Appearance that has frequently embarraſſed me. When the Root of a Tulip begins to ſhoot we ſee the Stem riſe from its Heart; but when we take it out of the Earth, the withered Stem appears on the Side of the Root. I now can comprehend the Cauſe of this Circumſtance. The Root that has been raiſed out of the Ground is not the ſame that was planted in Autumn.

Prior. The Subſtance of the Autumn Root is exhauſted; and therefore the Stem, which originally ſhot from the Heart, muſt appear at the Side of the new Root, that has been formed from an Offset. M. *De la Quintinye* has confeſſed in his Treatiſe of Inſtructions, that this Removal of the Stem from its firſt Situation was a Myſtery that exceeded his Comprehenſion. Your Ladyſhip, therefore, is not the only Perſon to whom this Appearance has created ſome Perplexity, tho' the Fact be capable of a very natural explication.

Chevalier. Be ſo good, Sir, as to inform me which of theſe two Methods of multiplying Tulips you think the beſt?

Prior. The Tulips that ſpring from Seed are moſt adapted to afford you new Productions; but their Multiplication by Offsets is attended with two conſiderable Advantages; one of which is, that you are not left long in Expectation; the other, that you are always ſure to be furniſhed with Tulips of the ſame Species with thoſe that produced them: and if you are but careful to mark the Offsets, and then diſpoſe them in a Bed, with the ſame Regularity, as you have placed them in your Regiſter, you may intermix them in a fine Taſte, and are able to range them with as much Propriety, as if you had already ſeen the Flowers.

Chevalier. What may be the uſe of the little moveable Tent, which I have frequently obſerved in the Gardens of the Curious?

Counteſs. It is placed on a Bed of fine Tulips, and either raiſed or lower'd in ſuch a manner as may be moſt proper to ſhelter the Flowers from melted Snows, which ſully their Luſtre, as well as from great Rains, which are apt to cruſh them; and likewiſe from immoderate Heats, which ſhorten their vegetable Lives. The ſame Precaution is often uſeful to other Flowers, eſpecially the double Hyacinth, and the Ranunculus.

Chevalier. Will you oblige me ſo far, Sir, as to acquaint me with the Qualities of a fine Tulip?

The Qualities of a fine Tulip.

Prior. The green Tincture of a Tulip was once the Subject of various Rules, but, at preſent, its Appearance is always thought pleaſing, when the Tulip is fine in other Particulars.

Counteſs. This is the ſhorteſt way of deciding its Merit.

Prior. The Stem is a kind of Pillar, that ſupports a Vaſe, and to which it ought to be duly proportioned. It is equally diſagreeable, if it either exceeds the proper Height, or has not ſufficiently attained it; or if it ſwells to an extreme Degree, or elſe appears too ſlender; and perhaps that Exceſs of Slenderneſs may be conſidered as its greateſt Defect.

A large Flower-Cup is always more agreeable than one of a moderate Size; The Tulip is not allowed the leaſt Merit when it happens to be extremely ſmall, but we diſregard it moſt when it is either flat or pointed. The Leaves ſhould never have an outward Slant downward, nor bend into a Dome within, but ought to be expanded with a regular and graceful Air. Inſtead of being formed into a Slope, or ſeparated toward the Bottom, they ſhould ſpread with an eaſy Freedom. Their Number muſt be always ſix, and each of them ought to be ſubſtantial and well tiſſued, that their Bloom may be the longer preſerved.

The Chives appear beſt with a brown Caſt, becauſe it adds Force to the lively Colours of the Flower; but it is not material with what Hue the Piſtil is tinged.

Counteſs. Let us now conſider the real Merit of a Tulip; for I muſt confeſs, that what I heard from ſeveral Perſons, who would be thought very curious in this Particular, ſeemed to me ſo confuſed, that it really exceeded my Comprehenſion. One would imagine the Beauty of Flowers to be a Circumſtance above the Capacity of common Minds; but if a moderate Share of plain Senſe be ſufficient to furniſh us with this Knowledge, I ſhall be extremely pleaſed. Let us enquire then into the Properties of a fine Tulip; but if it ſhould happen to be a Matter of Science and Study, I entirely renounce it, for my part.

Prior. This Knowledge is comprehended in a few Particulars, which are very eaſy and natural. A Tulip produced by Seed has an unmix'd and duſky Colour, in which it is generally very peculiar: One Claſs of them is gray, another red, and a third aſſumes the blue of Violets; others are tinctured like Cinnamon, Purple, Muſk, and Gridelin; but we eſteem thoſe the moſt which have the leaſt Similitude to red. There are ſome, however, in this Colour is clouded with all imaginable Variety, and they produce very fine Effects in time. The uncompounded Colour is intermixed in a few Years with ſeveral white or yellow Lines, which are often accompanied with black Streaks, and theſe are called the Stripes. The white is valued in Proportion as it reſembles Milk; but it ſucceeds better, and is more eſteemed in the *Netherlands* than among us. The yellow Stripe derives its Merit from the Perfection of its lively golden Dye, and thrives better in *France* and *Italy* than the white.

The Colours in a Picture are blended in the greateſt Perfection, when they ſoften into each other by inſenſible Diminutions; but they muſt always have a contrary Effect in a Tulip. The Stripe inſtead of being imbibed by the Colour ſhould intercept it in an elegant manner, and ought to penetrate the Leaf to render it more radiant.

Counteſs. All this I can eaſily comprehend.

Prior. The Stripe is much more amiable, and better diſtinguiſhed, when it is accompanied with black Streaks, that make it riſe more ſenſibly from the Colour.

Counteſs. Here are then three Qualities entirely different from each other; The principal Tincture of the Flower, which you only call the Colour: The white or yellow Streaks that divide it, and which you diſtinguiſh by the name of Stripes: And laſtly, the black Lines that heighten the Appearance of the Stripe.

Prior. Theſe are the whole Appendage of a Tulip, and their Arrangement is capable of producing an agreeable Variety. The Stripes ſometimes diſappear toward the middle of the Leaf, and become viſible again, with their black Lines near the Border. Some Perſons are pleaſed to call this Diſpoſition *the gay Dreſs*. The Stripe frequently traverſes the Leaf in large Breadths with black Lines, ſome of which ſeparate it from the Colour, in a curious manner; others inſtead of edging the Stripe paſs through it from one end to the other.

Counteſs. The Tulips in this Bed preſent me with all the Particulars you have deſcribed.

Prior. Theſe Stripes whether yellow or white are frequently very broad: they are likewiſe as often narrow, and very much reſemble a fine Piece of Embroidery. There are ſome Tulips whoſe predominant Colour is much more extenſive than the Stripes; and there are others whoſe Stripes drink up the greateſt part of the Colour, a ſmall Fringe of which is only viſible, toward the edge of the Flower.

A number of Obſervations were formerly made on the Ground of Flowers. This Name is given to the ſmall Flakes tinged with gray, or a Violet blue, and which are viſible at the bottom of the Flower, where they ſeem to form a little Star round the foot of the Piſtil. The fineſt Tulip was entirely diſregarded, when the Stripes encroached never ſo little on this Ground: But Experience has convinced all true Judges, that theſe little Niceties, which were once thought ſo requiſite, are altogether immaterial. Every Perſon favour'd ſome particular Mode, and diſliked the Flowers and Guſto of others. But what Prerogative have the People of *Flanders* to reform our Taſte; and what Right have we to condemn theirs?

Counteſs. The Standard of Taſte is not only varied with reſpect to Nations, but prevails as little in different Gardens. Inſtead therefore of all theſe arbitrary Rules, which only tend to impoveriſh the Minds of thoſe who obſerve them, is it poſſible to have the Knowledge of Tulips reduced into a ſhort, as well as an eaſy and intelligible Method?

A Rule for judging of Tulips.

Prior. I am far from preſcribing any particular Method to others; but my manner of thinking is this. Wherever a Taſte for amiable Nature prevails over the Jargon of Rules, I believe it will be always cuſtomary to value a Tulip, whoſe Stripes and Colour are very radiant, well contraſted and ſet off with Lines of a gloſſy black, in what manner ſoever Nature may have diſtributed theſe Intermixtures.

The Ranunculus.

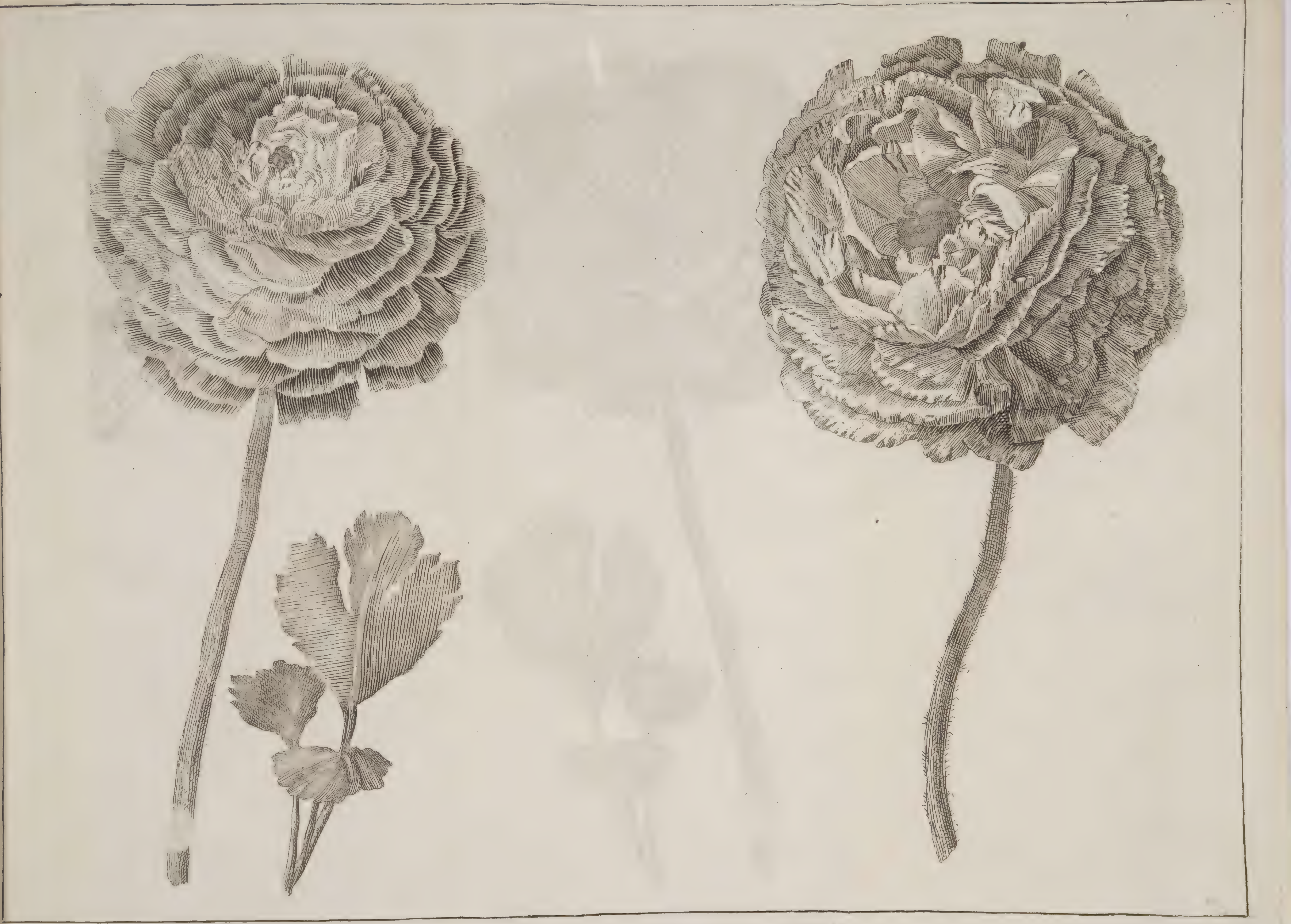
Counteſs. The Cultivation of Tulips has always been the Count's Amuſement, rather than mine; for they require more Attention than I can well afford them. But the Flower which I love to raiſe and multiply, as much as poſſible, is the Ranunculus.

Cheval. Here are ſeveral Beds of them; bat I am unable to judge which of them moſt deſerves my Attention; they are all ſo remarkable for their Luſtre and Variety.

Counteſs. I give the Preference to this Flower, becauſe it degenerates leſs than the Anemone. and the Beauty of its Colours almoſt equals thoſe of the Tulip; but it much exceeds it in the number of its Species.

Cheval. Which of them does your Ladyſhip eſteem moſt?

Counteſs. The red is counted the leaſt valuable, becauſe it is extremely common; and yet it affords a fine Mixture with thoſe that are double. But as beautiful as theſe laſt may be, the ſemi-double are in much greater Eſtimation at preſent: and are every where ranked in the firſt Claſs. Theſe before us are a Growth of them: They have but a moderate quantity of Leaves, as you may obſerve, and they are a Medium, in this reſpect, between the large double Flowers,



I. Mynde sculp.

The ſemi-double Ranunculus

hoſe Leaves are very numerous and thick ſet, and the ſin- e ones, which have hardly any.

Cheval. I am at a loſs to conceive why thoſe that are ouble ſhould not be prefer'd to the others. Perhaps the mi-double owe their Merit to the Turn of the Mode that w prevails.

Counteſs. This Preference is not a tranſient Taſte, and the ffect of mere Caprice; but is founded on the Variety of olours, which has the Air of a Prodigy. A ſingle Bed of e ſemi-double Flowers is at once an Aſſemblage of the pale, e citron, and the golden Yellows; the ſhining White, e mellow Red, and the Tincture of the Peach-Bloſſom: ou may there behold a Variety of fine Grounds, ſuch as e white intermixed with red Stripes elegantly diſtinguiſhed; e yellow ſpeckled with red or ſable Rays: ſome of theſe owers are roſy without, and white within. You will ſee different Claſs, tinged with ſhammey, and border'd with d, and others glowing with a Crimſon Ground. —— at their Catalogue is endleſs, and new Species are preſent- to our View, every Year. If the love of Change be er allowable, we may venture to admire it in Flowers; d if we can pleaſe ourſelves in changing what we love, we uſt certainly love the Ranunculus.

Prior. It is qualified to regale all Taſtes. The Root of ine Ranunculus yearly revives and perpetuates the ſame neaments of Beauty; which is a pleaſing Circumſtance thoſe who are conſtant in their Friendſhips. The Seed of e ſame Flower produces a new one, from year to year, ich is a Quality that muſt be agreeable to thoſe who de- ht in Change, and they will here find a ſufficient Variety employ their Choice. I was acquainted with a ſet of oriſts, who began to dignify each new Ranunculus with Name of ſome Perſon of diſtinguiſhed Merit. One was led King *Staniſlaus*; and another the *Czarina*: A rd was Marſhal *Villars*, and a fourth Prince *Eugene*: is was the Duke of *Berwick*, and that the Marquis of *feld*. The Ranunculus that diſcloſed a Range of jetty es or a radiant Ground, was named the *Rouſſeau*; but what reaſon, I am uncertain. Another that unfolded oſy Bloom without, and diſcovered an unſullied White- s within, was called the *Rollin*. One whoſe Speckles re ſo multiplied and thick-ſet that they rendered the

Ground on which they roſe inviſible, was the *De la Mott* Another, whoſe rich Leaves were regularly embelliſhed, their Extremity, with a beautiful Stripe was the *Fontenel* But our Floriſts ſoon diſcontinued this Practice; for whe they compared the number of great Men, with the Dive ſity of theſe Flowers that were daily making their Appea ance, they grew ſenſible that the Generality of them wou be in danger of continuing nameleſs.

Counteſs. The ſemi-double Ranunculus, with all th Advantages of an endleſs Variety that yearly changes th Decorations of your Parterre, has another Quality of whic the Double Flowers are deſtitute. I mean its Fertility i producing Seed; whereas the others are entirely unfruitful

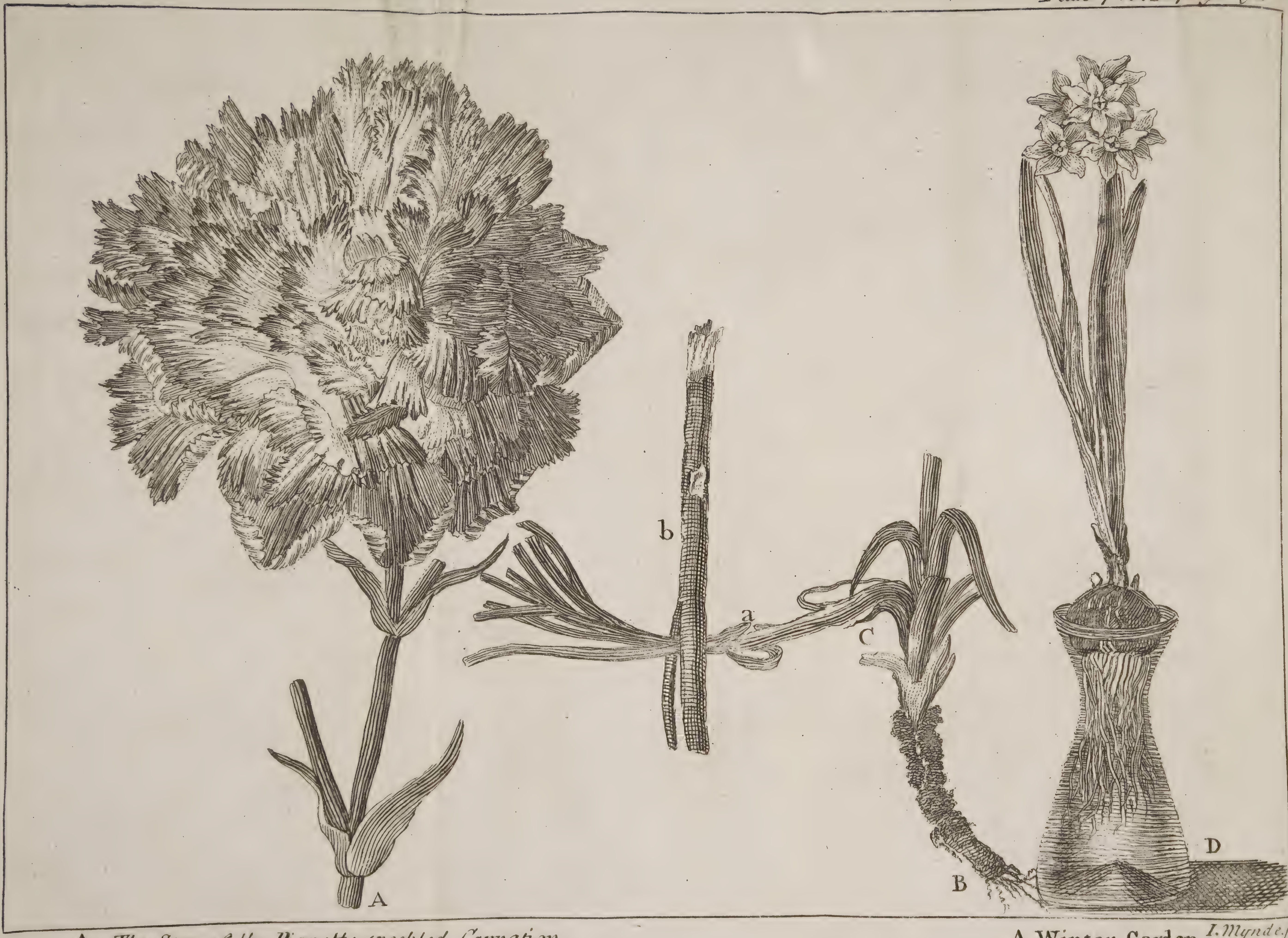
Chevalier. Is this Defect peculiar to the double Ranu culus?

Counteſs. The Generality of double Flowers in ever Claſs are unproductive of Seed. They diſcover indee the faint Sketches of a Piſtil and a few Chives; but the Pr fuſion of Leaves, with which they are covered, uſuall prevents them from ripening into Fertility. But when the double Flowers for want of proper Culture, or from any other Circumſtance, begin to be leſs luxuriant in their Leaves the Heart of the Flower is diſengaged from the Part wher it was fixed; and as it then enjoys all the Impreſſions o Warmth and Air, it produces Seed like other Plants.

Chevalier. Is it known from whence this Flower orig nally came?

The Hiſtory of the Ranunculus.

Prior. It is generally ſuppoſed to have been brought t us from *Tripoli* in *Syria*, ſeveral Ages ago and poſſibly in the Time of the Cruſade But it was a very conſiderable Period, before any but the double Flowers were cu tivated. About thirty Years ſince ſome Seeds of the Semi-double Flowers were brought to us from *Conſtantinopl* where the fine Ranunculus is very common. Monſieu *Valnay*, Comptroller of the Houſhold, was one of the firſ who form'd a Bed of theſe beautiful ſemi-double Flowers but what the Curious admired in the Years 1705, and 1706 in his Garden in the *Fauxbourgh St. Germain*, would hardly be ſuffer'd now, in an ordinary Bed of the ſecond Claſs ſuch Diſcoveries and Variety have we acquired from the Seed of the ſemi-double Flowers,



A. *The Stem of the Pignette speckled Carnation.*
B. *The Root.*
C. *A Layer.* **a**. *A Gash made by a Penknife in that part of the Layer which must be bent into the Earth to take root*
b. *A little forked stick to keep the Layer down in the Earth*

A. Winter Garden.

I. Mynde sc.

D. *The Leſser Oriental Narciſsus*

Chevalier. Are many Preparations neceſſary to their Cul- ure ?

Prior. This charming Flower in order to preſent you ith the moſt lovely Enamel that ever low'd upon a ſingle Species, requires no- ing more than to be planted in a rich Earth, ith a ſmall intermixture of Aſhes, or rotten Wood ; and be ſhelter'd from Humidity and ſevere Colds.

The Culture of a Ranunculus.

Chevalier. Her Ladyſhip promiſed to entertain us with e manner of cultivating the Carnation, at did not promiſe to ſhew us one : And et I obſerve ſeveral that are very amiable. his Sight, in my opinion, is very extraordinary for the be- nning of *May*.

The Carnation.

Counteſs. there is one Method of tending them, which ill cauſe them to blow each Month in the Year, Winter ot excepted, and even in a Green-houſe.

Chevalier. It muſt then be the completeſt of all Flowers, nce it wears the fineſt Array of Colours ; is graced with e moſt delicate Shape ; diſpenſes an aromatic Fragrance ound it, and is attainable in every Seaſon of the Year: at there are ſeveral Species of this Flower, and I ſhould glad to know which of them is moſt eſteemed.

Prior. The Carnation like the Tulip has its Stripes form- in the ſtrongeſt Oppoſition to the predo- inant Colour, into which they are never ften'd. But they muſt likewiſe be extended thout any Interruption, from the bottom their Leaves to their other Extremity. The large ones e much finer than the ſmall, as they exceed them in e number of their Leaves by one half, or four at leaſt. ne noble ſpread of a Carnation forms a Circumference nine or ten Inches, with a Diameter of about three. hey are greatly prized when they have a Multitude of aves, becauſe they form a more elegant Figure. It is much re graceful when the Head is beautifully rounded like Tuft, than when it is only flat. Too great a number of ots would create a Confuſion in the Flower ; and were too much indented it would ſeem jagged. When the Ex- mities of the Leaves, inſtead of being properly arched, e lengthened into a Point, they make a wretched Appear- ce ; and this is the greateſt Defect it can poſſibly ſuſtain.

The Qualities of a fine Carnation.

As to the Method of raiſing and improving this Flower; no one underſtands it better than her Ladyſhip,

Counteſs. Carnations may be propagated either from Seed: or Layers. The Seed diverſifies the Species of the Flower, and the Layer perpetuates thoſe that are moſt amiable.

The Layer.

The Layer ſhould be planted in the Month of *July*, and not ſooner, leſt the Flower of the Stem ſhould be injured.

Chevalier. This is an Operation of which I have not the leaſt Knowledge.

Counteſs. Nothing more is neceſſary than to lay a Shoo in the Earth, leaving the Extremity above the Surface; bu the Tops of the Leaves muſt firſt be clip'd and a Gaſh open'd with a Penknife, half way into the Joint that is intended to be ſunk in the Ground; and then this little Branch muſt b kept down in its proper place, with forked Sticks.

When it has taken Root, as it will in a ſhort time, i muſt be cut off from the Mother-Plant; from whence it no longer ought to derive its Nouriſhment, becauſe it is the time for it to ſupport itſelf.

When the Stem riſes ſo high as renders it impoſſible t bend the Shoot into the Soil, we cauſe it to paſs through Tin Funnel fill'd with Earth, and ſupported by a Woode Fork. When the Branch has ſhot forth ſome little Roots in the Funnel, it is cut off in its lower Part, in order to b placed in a Pot.

Prior. We may cauſe the Layers to ſhoot, by diſpoſin them in Pots, in a bed of a moderate Warmth, and afford ing them an open Sun-ſhine, and frequent Waterings, whic are the two great Promoters of Vegetation.

Counteſs. You ſeem'd a little ſurpriſed, to ſee large Car nations in ſo early a Seaſon; but this Effect is produced b the manner of laying the Flowers, which may be alway managed to advantage, from *July* to the end of *Septembe* There are ſome Kinds indeed, that naturally blow ſoone and others later; and we may eaſily obtain a good numbe of both; But the ſureſt Method of ſecuring a Bloom of Ca nations, for the greateſt part of the Year, is to have Laye of three the Summer Months, and they will flouriſh agre ably to the time of their Procurement; either ſooner or late Some will unfold their Beauties in the Spring, others in th Summer, and a third ſort will only appear in Autumn. Bu oſe, whoſe firſt Sproutings are clipt, will preſent us with eir Flowers in the depth of Winter itſelf.

Another Method of multiplying Carnations, and produ- ng thoſe that are beautiful in a ſhort time, is to ſeparate e Layers from the Stems of thoſe Kinds that pleaſe us. he Layers frequently contain others, which are ſubordinate o them; and we ſtrengthen the Parent-Plant, by relieving er from ſo numerous an Offſpring. The principal Carna- on, no longer ſharing the Sap with ſo many Competitors, ains greater Vigour, and aſſumes a more agreeable Ap- earance; while the Layers are likewiſe ſtrengthened the ooner, and produce Flowers of equal Beauty, in a ſhorter pace of Time.

But when we ſeparate the Layers from the main Stem, ith a ſlender Root to each, we muſt be careful not to injure em, by ſuch Wounds as may be deſtructive to the Parent nd her tender Progeny. In all Operations there is an Art nd Dexterity of Management, that reſults from Practice, nd can never be acquired by the Knowledge of a mere Set f Rules.

Prior. Some curious Perſons have attempted to multiply e Carnation by Stock-Grafting, and ey aſſure us the Experiment has ſucceeded o their Wiſh. We may, hereafter, give e Chevalier a proper Idea of grafting in this anner.

New Improvements, &c. Vol. I.

Counteſs. Were this Practice reduced to any Certainty, ith reſpect to Carnations, nothing could be more com- odious; for we might ſoon cauſe the fineſt Claſſes of this lower to ſpring from the moſt common Stem of a vi- orous Growth. We might even carry the Improvement o a greater Height, and propagate different kinds of Car- ations all upon the ſame Stem, by which means we could rich any particular Vaſe with a natural Cluſter of the lar- eſt Flowers varied in the moſt agreeable manner. I am de- rmined to make the Experiment, ſince the Riſk is inconſi- erable, but I fear it is only a Flight of amiable Imagination.

Chevalier. Does the Carnation require any peculiar ompoſition of Soil?

Prior. It thrives to Admiration in *Flanders*, where the arth is rich and oozy; but droops in *Provence*, and along ur Southern Coaſts, that lie in a ſcorching Climate, and whoſe Soil is extremely light. We may therefore judge, that it requires a black, marſhy and ſubſtantial Earth, with a ſmall Intermixture of Horſe and Cow-dung to correct each other, and to prevent the Soil from being too compact.

Counteſs. When Winter approaches, we diſpoſe theſe Flowers in a Green-Houſe, where they faintly retain a kind of reluctant Life. It will be proper, however, to air and water them in mild Seaſons, and after the enſuing *Lent* we may afford them all the air we think requiſite, but muſt be careful at the ſame time, to preſerve them from the Injuries to which they are obnoxious.

When the Carnation intended for the Theatre of Flowers begins to be unfolded, as it is only placed in that Situation to delight the View, great care is uſually taken to adjuſt its Array, and prevent the Diſorders to which it it is ſometimes liable. It is apt to burſt the Cup that contains its Leaves, and conſequently the Flower will run out on one Side; to prevent which it will be proper to make equal Inciſions, with a Needle on each Side, that the Petals may expand and fall in a ſwelling Round. It may likewiſe be ſuſtained with a circular Collar of ſtrong Paper, a Band of Thread, or a Ring of Willow-Bark, fixed about a third of the Height of the Spindle, with whoſe Colour it correſponds, and is therefore rendered imperceptible. It will likewiſe be neceſſary, at that Seaſon, to water the Carnations every Day.

Theſe are the five ſorts of Flowers, which are the principal Amuſement of thoſe who are curious in Productions of this nature: However, they are not diſregardful of the others, but raiſe ſuch a Number as is proportionable to the Plot of Ground they poſſeſs. The Hepaticas alone, when thoſe that are blue are properly blended with the red and white, are ſufficient to afford a Month's Embelliſhment to the Verge of a Parterre, or a Court, when the Snows of *February* are melted. They may be intermixed with Cowſlips that ſpring in our Meadows, and whoſe Culture affords great Variety, and may be rendered very ornamental. The Narciſſus, the double Violet, the double Hyacinth, the double and ſingle Jonquils, the red and white Sow-bread, and even Daſies, when they are wellhoſen, produce agreeable effects, either when they are ranged into their ſeparate Families, or intermixed in the ame Bed, every one declares in favour of Julians, which would call the Balm of our Gardens; and they are capable of being multiplied with the greateſt Facility.

Chevalier. I am unacquainted with this Method of their Cultivation.

Counteſs. When the fine Cluſters of the Julian have finiſhed their Bloom, it is uſual to cut and ſhorten the Stems and Branches by which thoſe Cluſters were ſupported: They are then fixed in the Earth anew without any other Preparation, and all theſe Branches will afford you as many new ſtems, provided you plant them in a rich Soil, renewed from Year to Year, and without any Intermixture of Horſe-Dung. But if this Method of Cultivation be neglected, they will ſoon degenerate, as is commonly ſeen at *Paris*, where this Flower ſeldom appears in its proper Beauty.

Chevalier. I ſhould think the Stock-Gilliflowers merit a more peculiar Care, becauſe we enjoy them or a longer Seaſon. The yellow-double, which is exquiſitely fragrant, preſents us with all the Luſtre of Gold. Thoſe that are either ſtriped or tinged with white, red, or a Violet-blue, riſe with ſtately Heads, and diffuſe a moſt agreeable Odour.

The Stock-Gilliflower.

Counteſs. I am not for blaming the Curioſity of thoſe Perſons who cultivate foreign Plants; but neither *Peru* nor the *Indies* can regale us with any Productions that exceed a fine Stock-Gilliflower, and I believe it is ſuch an Object, as even the *Indians* themſelves would behold with Admiration and Envy.

Prior. We have not taken any notice of the Claſs of Poppies or of double Corn Roſes. Theſe Flowers are only multiplied by their Seeds, which yearly produce ſuch Beauties as are capable of delighting even thoſe who are fondeſt of Novelty.

Counteſs. I am uncertain whether they ought to be conſidered as a Model, or a Reproach to Painters and Embroiderers.

Chevalier. There is one Flower, which, in my Opinion, diſplays more Luſtre than any we have yet mention'd, and is the fineſt Embelliſhment of a large Garden. I mean the Lily.

Prior. Wiſdom itſelf has uttered its Panegyric, and preferred it to all the Purple and Splendor of the moſt magnificent Kings.

Chevalier. Can you obſerve, Sir, any Reſemblance between this Flower and the Lilies in the Arms of *France?*

Prior. The upper part of a Leaf of this Flower ſeen in its full Width, and the two adjoining Leaves, viewed in Profile, ſeem to have ſome faint Similitude with the Top of a Flower de Luce, but this Similitude muſt be aided by ſome Hiſtorical Conjecture.

Counteſs. We are apt to loſe the View of Nature, the Moment we quit the Garden. Why is the Name of a Lily given to a Figure that reſembles it ſo little?

La Monumens de la Monarchie Françoiſe de D. Bernard de Montfaucon, Tom. I. & II.

Prior. It is very probable that theſe three ſmall Leaves conſtituted the original Flower de Luce, or that kind of Flouriſh which uſually appears in the Crowns, and frequently riſes on the Extremity of the Sceptres, in the Monuments of the ſecond Race of our Kings. *Lewis* the Seventh, firnamed the Young, and who was one of the Princes engaged in the ſecond Cruſade in the twelfth Century, diſtinguiſhed himſelf, as was cuſtomary at that time, by a particular Blazon, and formed his Coat of Arms with this Flouriſh; the Supporters were a Repetition of the ſame Flower in little: And as the People generally contracted the Name of *Lewis*, into that of *Luce*, it is very natural to believe that this Flouriſh came by theſe means to be diſtinguiſhed by the Name of the Flower *de Luce.*

THE APPENDAGES TO A PARTERRE.

DIALOGUE VI.

The COUNT. *And the* CHEVALIER.

Count. TO what Uſe, Sir, do you intend thoſe little Tiles, which you are ranging with ſo much Application?

Chevalier. Will your Lordſhip be ſo good as to read the Inſcriptions on them?

Count. The Mountain Lily, the *Calcedonian* Iris, Gold-Buttons, Fox-Gloves, Florets of Knap-Weed.——I find Sir, you have been making a Catalogue of Flowers?

Chevalier. I daily hear the Names of ſeveral that are Strangers to me, and frequently ſee others that I know by Sight, but am unacquainted with their Names. I have therefore fixed a little Ticket to the Stem of each Plant, and I call them by their Names as they preſent themſelves to my View when I am walking alone, but whenever my

Memory

Memory happens to fail me I immediately refer myſelf to the Inſcription, till I learn to diſtinguiſh them by their Leaves.

Count. You muſt compile a Book then of all my Garden; ſince the Precaution you have already taken will be equally neceſſary for a Multitude of other Plants that adorn this Spot of Ground; but I will endeavour to render them familiar to you. A Parterre is not ſufficient to complete a Garden, and it requires a Variety of Appendages; ſuch as Flowering Shrubs, green Alleys, verdant Arbours, with an Intermixture of Paliſades and Groves.

The firſt Appendage to a Parterre is a Growth of the large flowering Shrubs, together with thoſe of other Species, and to theſe may be added a Variety of foreign Plants. As the number of flowering Shrubs is not very conſiderable their Deficiency may be ſupplied by large annual Plants.

Chevalier. I ſuppoſe your Lordſhip means thoſe whoſe Stems are entirely decay'd at the Year's end, or a little after.

Large annual Plants.

Count. The very ſame, Sir, and we always make choice of ſuch as riſe in fine Pyramids, whoſe luxuriant Leaves are crowned with rich Cluſters of Flowers. Theſe Qualities render them proper to cover a large Vaſe, and beautify the extended Plots: Such for Inſtance are the Julians, Stock-Gilliflowers, Lilies, Pyramidals, Indian-Pinks, Amaranths, Stork-Bills, and a Variety of others, with which you are ſufficiently acquainted. The Belvederes are likewiſe as ſerviceable, though they are unproductive of Flowers.

Flowering Shrubs.

The flowering Shrubs are the common, as well as the *Perſian* Lilac; the Orange, Citron, and Pomegranate Trees, the Jeſſamine, and Roſe Plants, with ſeveral ſorts of Laurel.

Chevalier. I know a Number of Gentlemen, who deſire no other Parterre, than a few Beds garniſhed with theſe Trees.

Count. Theſe ſtately Plants are more ornamental to a Garden, than the Generality of thoſe that are eſteemed by curious Floriſts, and which Nature has painted in Miniature,

niature, becauſe they are only intended for a near View: Whereas the others are drawn with larger Lineaments, and riſe in a more ſimple Form. They are likewiſe multiplied with Profuſion on the ſame Stem, and have uſually but one Colour, which with the branching Verdure that ſuſtains them, gives them an amiable Appearance, even in a diſtant Proſpect, and renders them a noble Decoration to a ſpacious Plot.

Chevalier. I doubt the pleaſing Array of theſe Plants is too tranſient; but we are not ſo much limited in the Cultivation of Flowers, becauſe we may enjoy them in regular Succeſſions.

Count. We may likewiſe be accommodated with flowering Trees, for the greateſt part of the Year, and with a number of agreeable Variations, when the Laurus Tinus has performed its part, in the laſt Months of the Winter Seaſon, and even to the return of Spring; it quits the Scene, and is ſucceeded by the Lilacs, which we intermix, by diſpoſing Boxes of the white and blue Cluſters, in alternate Ranges, and you may obſerve their Effect through the length of this Terraſs. Theſe are the immediate Predeceſſors of the *Gelder-Roſe*, the Honey-Suckle, the common Jeſſamin riſing on Stems, or rounded by Hoops, into the form of a Vaſe; the *Spaniſh* Broom, and the *Perſian* Lilacs, with the yellow Jeſſamines, and thoſe of *India*, *Arabia*, and *Catalonia*, which continue flowery for ſeveral Months, notwithſtanding the daily Tributes they tender to each new Viſitor who approaches them. The ſame Seaſon delights us with the balmy Fragrance of the Orange-Flower, and the rich Purple of the Pomegranate. We ſhall afterwards be regaled through the whole Autumn, with a Combination of the ſofteſt Colours, reſulting from the blended white and red of the Laurel Roſe.

We may intermix the flowering Trees with a Variety of Shrubs that are in great eſteem either for their unfading Verdure, or the refreſhing Odours they diſpenſe. Of this Claſs are the Myrtle, the Roſemary, the Orach, with the Trees of *Saint-Lucia* *, Yew, Cypreſs, Cherry-Laurels, and an endleſs Diverſity of other Species. The Holly-

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* A Species of Cherry-Tree, of a pleaſing Scent, and a very agreeable Flower.

Tree itſelf, as jagged as it appears, is render'd worthy of a Situation in our Gardens, by its undecaying Green, and the admirable Vermilion of its Berries, which delight the View in the Depth of Winter.

Chevalier. Your Lordſhip has not taken any notice of Roſe-Trees, and yet they make a very amiable Figure in the Garden.

Count. I am far from diſregarding them, and indeed they are as valuable as all the Variety of flowery Shrubs. Thoſe we procure from Foreign Parts, at a great Expence, have no real Superiority, and perhaps are not comparable to the Beauties of a regular Succeſſion of our native Roſe-Trees, when they are cultivated in a proper manner. There are more then fifteen Species of Roſes, as well the ſingle as the double; the white, the yellow, the crimſon, and the ſtriped: And beſide the Facility of diverſifying their Colours, by the Intermixture of the ſeveral Kinds; we may obtain this Variety on the ſame Stem, and produce a Bloom of five or ſix ſorts of large Roſes, entirely different from each other, by the Operation of Grafting.

We may raiſe them, if we are ſo diſpoſed, by lopping off the Shoots that ſprout from the Stem; but the moſt important Circumſtance in their Culture is to allow ſome of the Buds to ſpring, while we retrench the reſt, and to moderate the Growth of the Trees, ſome more and others leſs, by which means the Buds will unfold themſelves in Succeſſion; ſome at the cloſe of Summer, others in Autumn, and the reſt in the Winter Seaſon itſelf. Nothing can be more caſy and natural than the Method of prolonging this lovely Flower.

Chevalier. I begin to be ſenſible, more than ever, that the moſt common things are in reality the moſt amiable; and that we are under no Neceſſity of being anxious after ſcarce and foreign Productions, for the Gratification of our Curioſity.

Count. It will be ſufficient if we make an orderly Diſpoſition of what Nature has placed around us; and this Truth will be rendered ſtill more evident to you by the other Embelliſhments of our Gardens. Let us only allow all the Luxuriance of Growth to the Linden, the Hazel, the White-Thorn, the Fruit-Trees, and every other Plant that riſes before us, and we ſhall ſoon be lodged like the Lions and Tygers of the Wilderneſs. We ſhall ſee ourſelves ſurrounded with thorny Buſhes and glooming Thickets. But on the other hand, let us beſtow the leaſt Arrangement on the Products of Nature, and our Habitations will quickly be changed to a verdant Paradiſe.

Common Reaſon inclines us to clear the Front of our Apartments from whatever would darken them or intercept the View, and when we open a Plot of Ground of a reaſonable Extent, it is but natural to diſpoſe it in ſuch a manner as may amuſe the Sight with ſome agreeable Object. To this Intention, we may refer the Origin of Parterres, and the eaſy Delicacy of the Ornaments that compoſe them. But I muſt likewiſe obſerve to you that a Parterre which is only an open Level, ought to be ſet off by Objects of a different Caſt, that mutually contraſt one another, and riſe on each Side, either to terminate or diverſify the View, or to furniſh us with ſome other Accommodations.

The Diſpoſition of theſe Appendages requires a more accurate Taſte than the Parterre itſelf; and I will now repreſent to you in a few Words the Deſign of the ſeveral Pieces, together with the Plants that compoſe them, and the proper Method of ranging the whole. We will begin with the Alleys.

Alleys.

Alleys are either planted or open. Thoſe of the latter kind are extended in a level Surface, edged with Borders of Box, and covered either with Sand or Turf formed into an agreeable Walk, round the Parterre.

Thoſe of the former ſort are either bordered with large Trees, or with Plants, diſpoſed in Boxes. Some are covered, to render the Enjoyment of the freſh Air more commodious; others are entirely open at the Top. They are ſometimes calculated to improve the Proſpect of the Country; and this, if poſſible, ought to be the effect of the Alley that fronts the Building, and correſponds with the middle of the Parterre, ſome are qualified to direct the Eye to a pleaſing Object; as you may obſerve in this before us.

Chevalier. The two Towers of the Monaſtry, which form the Point of View, ſeem as if they were built with an Intention to embelliſh it.

Count. The main Alley, which uſually opens at the end of the Parterre, is ſometimes accompanied with two Counter-Alleys that are leſs ſpacious. When that happens to be the Diſpoſition, the Alley in the middle is always compoſed of large Trees, whoſe Tops are cut even with each other, while their Trunks riſe in the open Air. The Counter-Alleys may be cloſed on the right and left, with two large Ranges of Paliſades or verdant Walls.

Chevalier. I obſerve that all the Trees in the two Alleys which accompany your Lordſhip's Parterre, as well as in that which opens through the Wood fronting the Caſtle, are of the ſame Species.

Count. They are all broad-leaved Elms, and no other Trees are ſo complete and uniform in their Foliage.

Chevalier. Is not the Lime uſually choſen for fine Alleys?

Count. I muſt confeſs the *Indian* Lime is render'd very ornamental by its lively Green; together with the large Cluſters of its Flowers, and its amiable Head: It is likewiſe a Tree of a ſudden Growth; but then it is ſubject to the Depredations of a Caterpillar, that yearly deſtroys the greateſt part of its Verdure in the midſt of Summer. I may add too, that it always ſoils the Walks, and drops its ſhaggy Pods, when it ſhades its Flowers at the cloſe of Spring. It is likewiſe diveſted of its Fruit in Autumn, and reſigns all its Beauties at the Fall of the Leaf.

Chevalier. Theſe are ſufficient Reaſons for our diſregarding it: But is its place only to be ſupplied by the Elm?

Count. Beſide the two Species of Elms we enjoy, the one with ſmall, and the other with expanded Leaves, we may plant our Alleys with the Plane, the Maple and the Linden Trees: Some Perſons likewiſe chooſe the *Egyptian* Thorn.

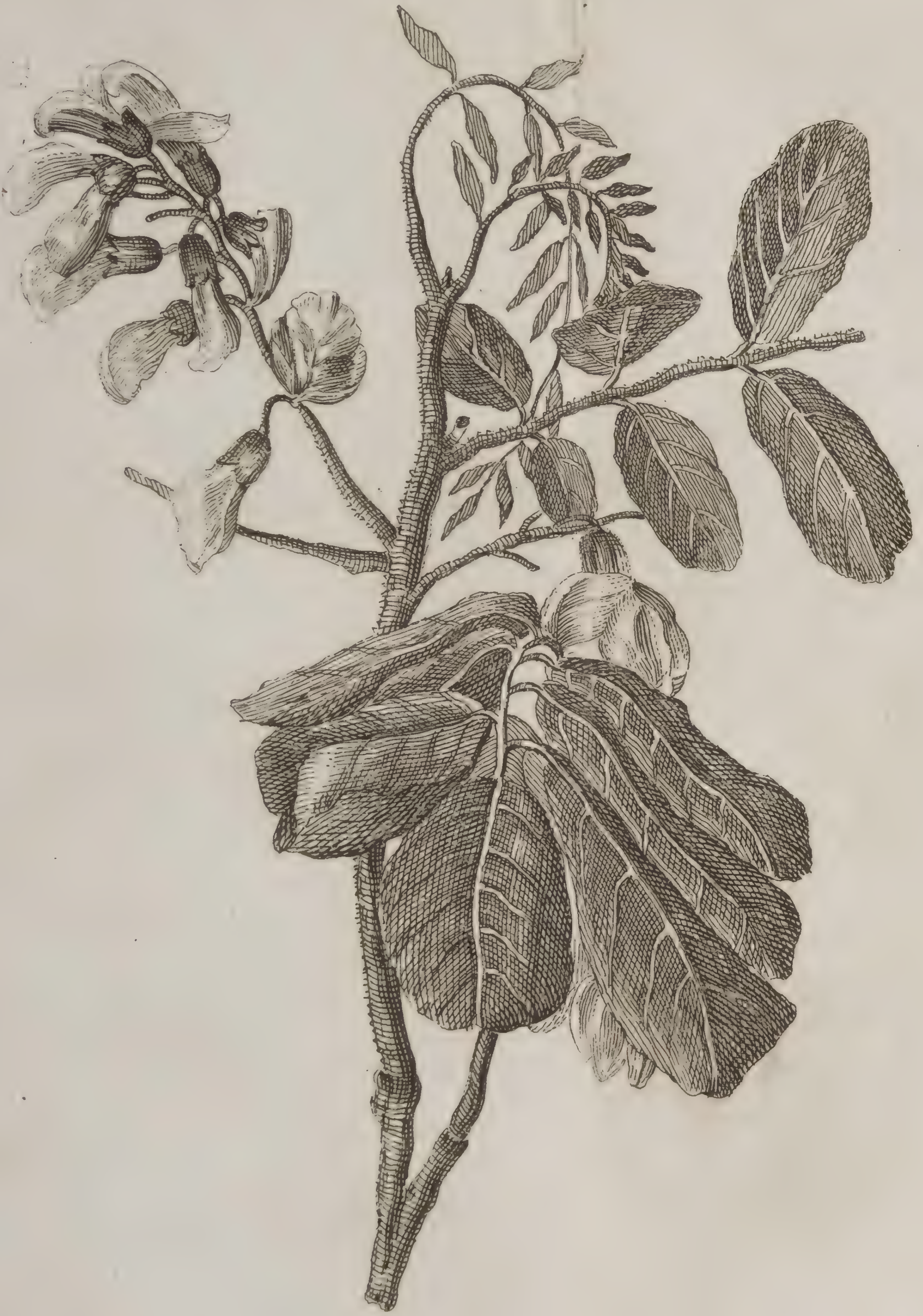
The *Egyptian* Thorn.

Chevalier. I am well acquainted both with this Plant and the Plane-tree; and have often gathered Flowers of an admirable Fragrance from the former. The Plane has a ſpreading Leaf ſhaped like a Star.

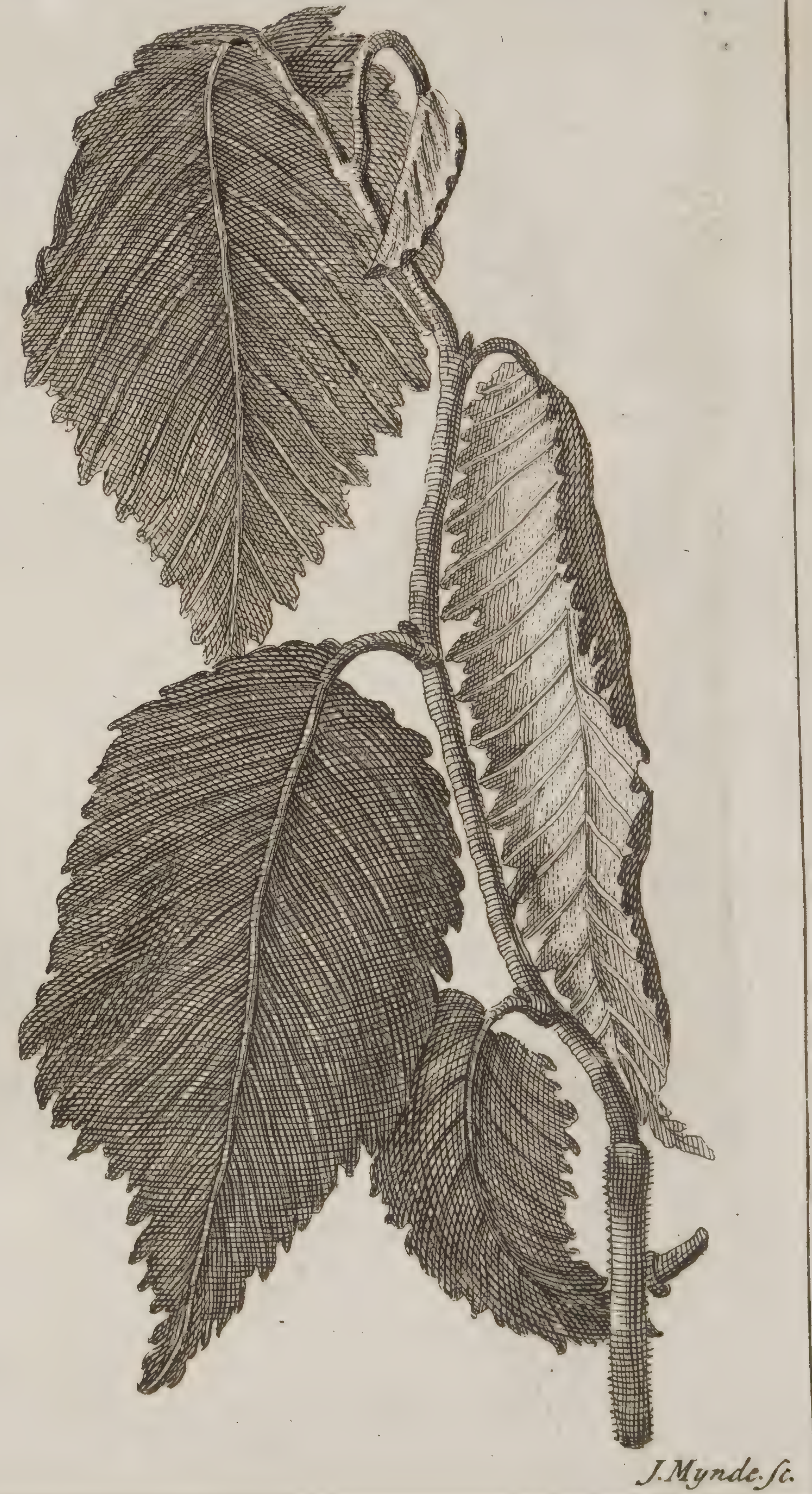
The Plane.

Count. The Fate of the Plane is greatly changed. The *Greeks* and *Romans* prized it exceedingly for its grateful Shade, and

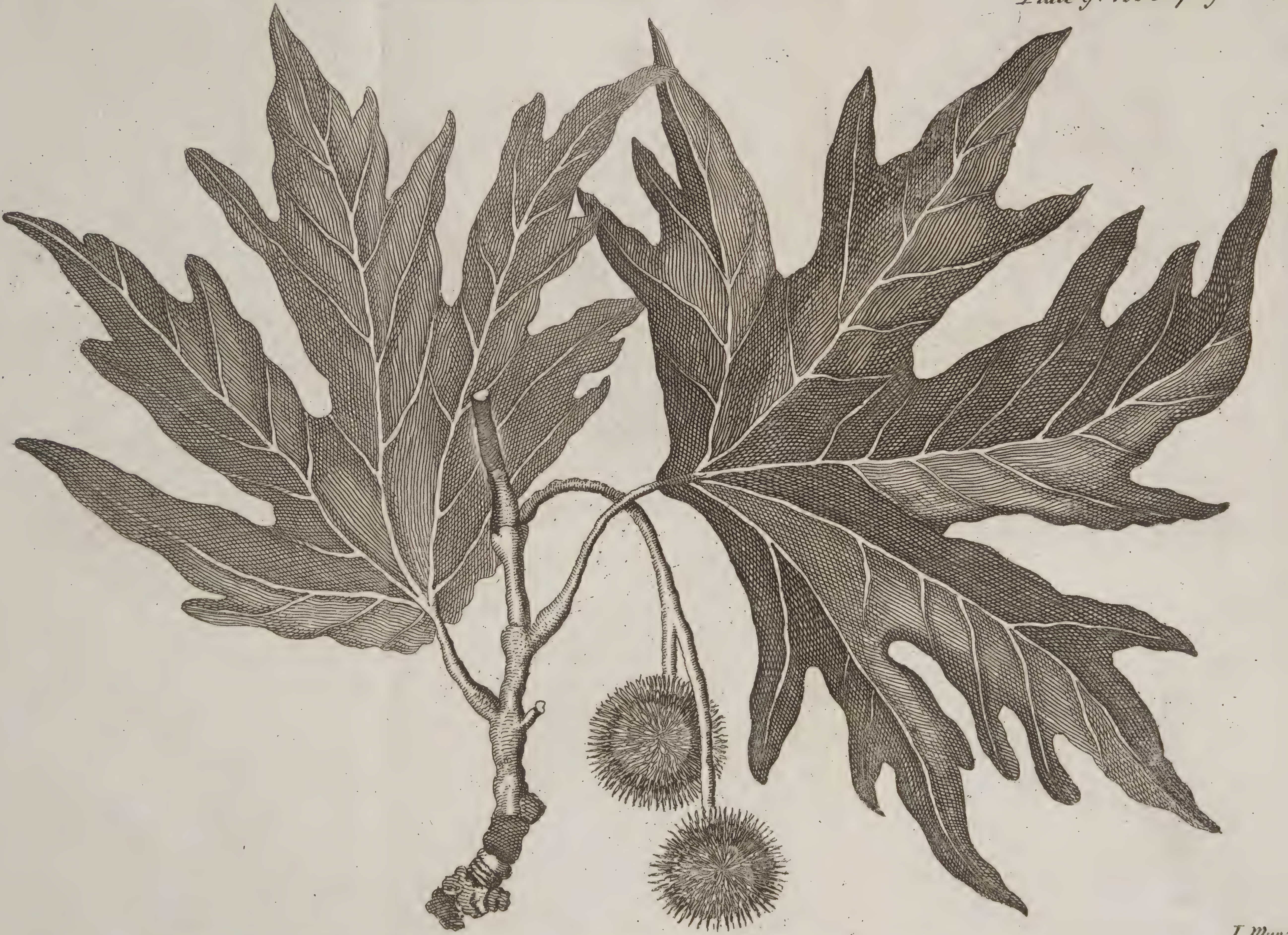
were



The Indian Acacia



The broad leav'd Elm



The Plane Tree

were much delighted with enlarging its Head, and forming a ſpacious Dining-Room in the midſt of its Foliage. They planted it in their Gardens and the Avenues to their Country-Seats, as well as in every other Situation; and I ſuppoſe you have read *Horace*'s Complaints of their Partiality to this Tree.

* *Our pompous Piles will leave us now*
Few Acres for the foodful Plough;
Canals of Art are ſtretch'd around,
More ſpacious than the Lucrine Bound;
And unproductive Planes *invade*
The injur'd Elm's prolific Shade.

Chevalier. I remember them very well; and that great Poet thought it ſtrange that the Plane-Tree, which only affords an unfertil Shade, ſhould be propagated more than the Elm, which may be render'd advantageous and fruitful, by eſpouſing it with the Vine.

Count. The Plane is very little uſed, at preſent, in our common Gardens; and we give the preference to the large Maple, whoſe leaves have a great reſemblance to thoſe of the Plane. We are ſtill better accommodated by the leſſer Maple, the Yoke-Elm, and the Linden in particular; becauſe it is not only a Tree of a ſpeedy Growth, but it aſſumes all Shapes with the greateſt Pliancy, and adapts it ſelf to every Soil. We may likewiſe ornament the lower part of this Tree with large Buſhes of Yew, or with Roſe-Trees form'd into Vaſes, or inverted Bells. The Linden Stocks which riſe into the Air with round Heads, reſemble the long Rows of Orange-Trees in Boxes.

Chevalier. When theſe Vaſes are all cover'd with Roſes they muſt form an inchanting View, in an Alley where they are thus diſpoſed.

Count. We may make greater Improvements ſtill. As it is not uſual to accompany Parterres with Trees of lofty Stocks, unleſs the Gardens be very extenſive; we may either

---

* Jam pauca aratro jugera regiæ
Moles relinquent: undique latius
Extenta viſentur Lucrino
Stagna Lacu: *Platanuſque cœlebs*
Evincit Ulmos; Carm. l. 2. Od. 15.

ther in the middle, or on each Side of the large Alleys that border the Parterre plant ſtraight Lines of Dwarf-Lindens, whoſe Stems muſt be contracted in their Aſcent, that their Sides may ſhoot out. Theſe Plants may be cut into the form of ſquare Boxes, and we uſually place in the Centre of thoſe verdant Vaſes a large Panier of tufted Flowers or the blooming Head of a Roſe-Tree.

Chevalier. I ſee this Diſpoſition has been obſerved in the two Wings of the grand Parterre. The Proſpect is not limited by theſe pleaſing Alleys, and they diffuſe an Air and Magnificence through the whole Garden.

Count. This is a Pleaſure that did not coſt me a length of Time to procure its Enjoyment, and it likewiſe ſaved me the Expence of rich Vaſes, and timorous foreign Plants, which we can only venture to expoſe to the Air in fine Weather. I am for thoſe Productions that ſpring in our Climate, and which we may ſhelter from the ſevereſt Froſts, by a ſlight Covering of Straw.

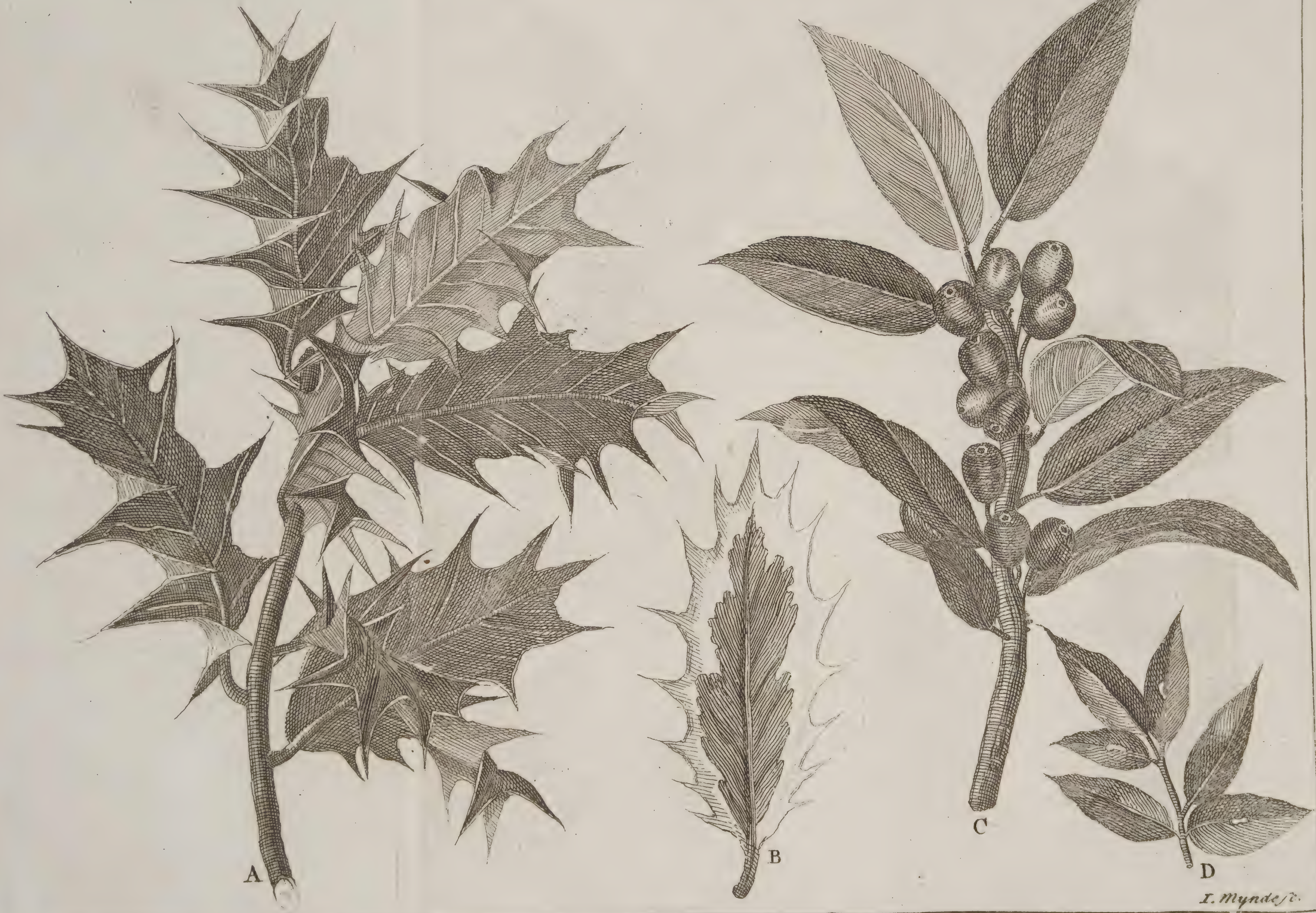
Chevalier. I admire the light and elegant Form of thoſe Bowers, that ſo agreeably terminate the View on each ſide.

Count. Bowers and verdant Halls are capable of various Embelliſhments; and we intermix them with the Honey-Suckle, the Jeſſamin, the Yoke Elm, the Linden, and even the Ever Greens. Theſe pleaſing Retreats had formerly a melancholly maſſive Air. The Stems of the Plants that form'd them were frequently bare, and their Sides had a wither'd Aſpect, becauſe their Vegetation was checked by an injudicious Carefulneſs to cover them in every Part. The preſent Taſte is in favour of Bowery Works uncover'd at the Top, and entirely open'd on the Sides in the form of Porticos, or bending Vaults ſuſtain'd by green Columns of a delicate lightneſs of Shape. We may there enjoy a more ſalutary Circulation of Air, and every part of the Verdure is nouriſhed with leſs difficulty, becauſe the free Paſſage of the Air and Sun-beams renders the Leaves equally ſtrong and lively both above and below.

Chevalier. The lower parts of the Paliſades are undoubtedly disfigured by an Exceſs of Shade and Scarcity of Air.

Count. Their Height ſhould never equal the Breadths of the Alleys they border; and when the Trees that frequently crown them, have their Tops cut into a regular Level, and

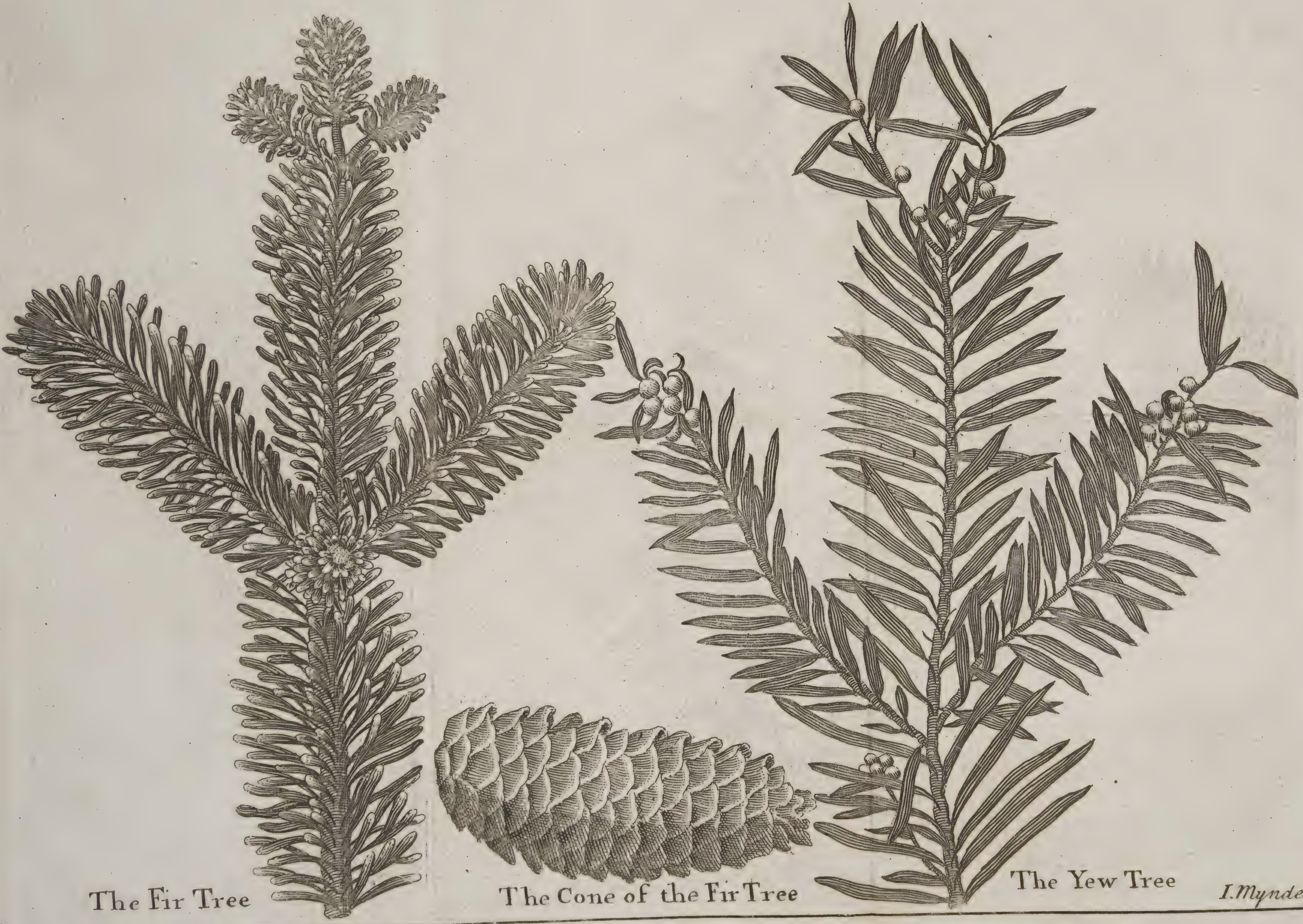
Plate 12 Vol. II page 65



A. The Leaf of the Holly.
B. The Variegated Holly.

The Holly.

C. A young Sprig of the Holly and its Berries.
D. The little Holly.



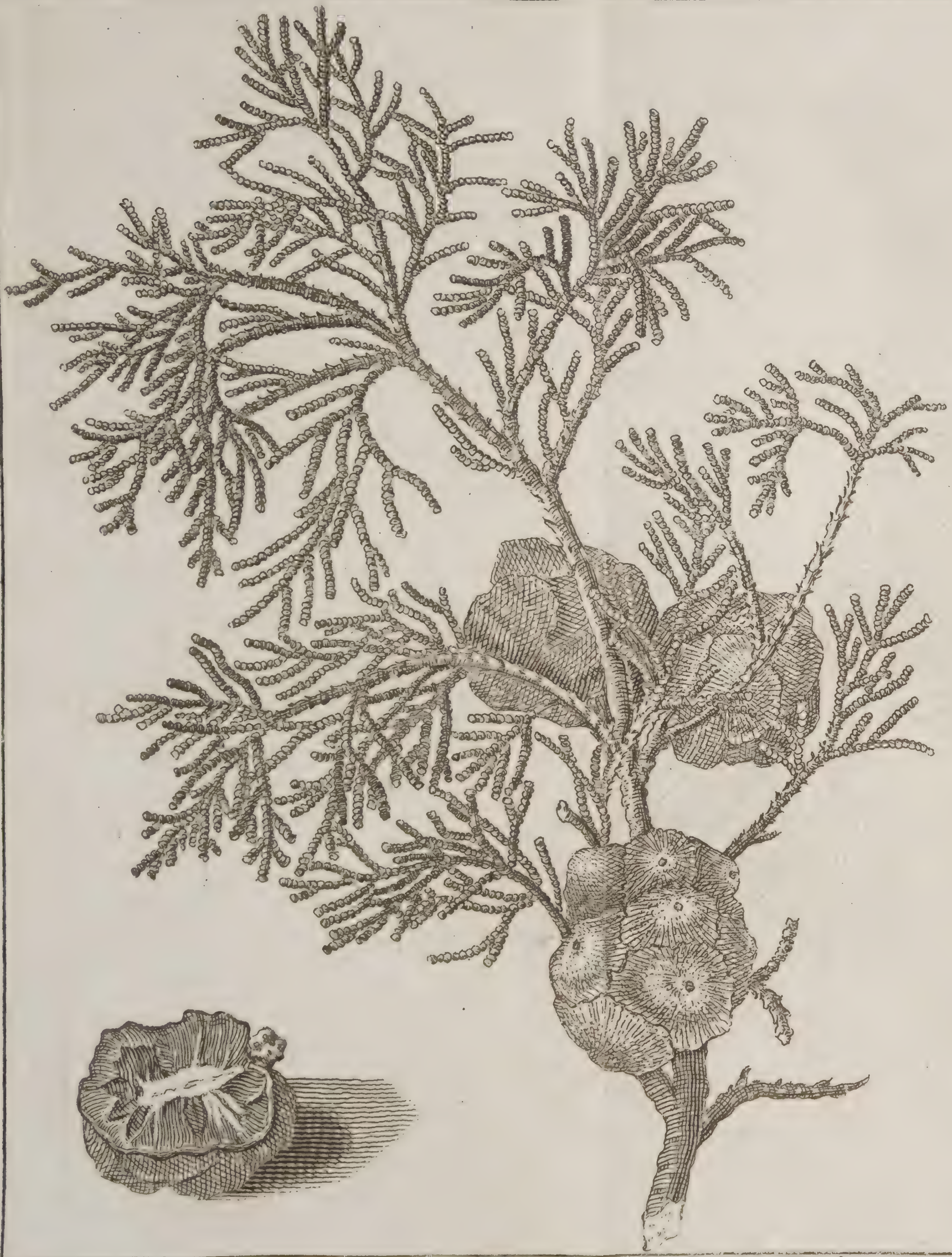
The Fir Tree

The Cone of the Fir Tree

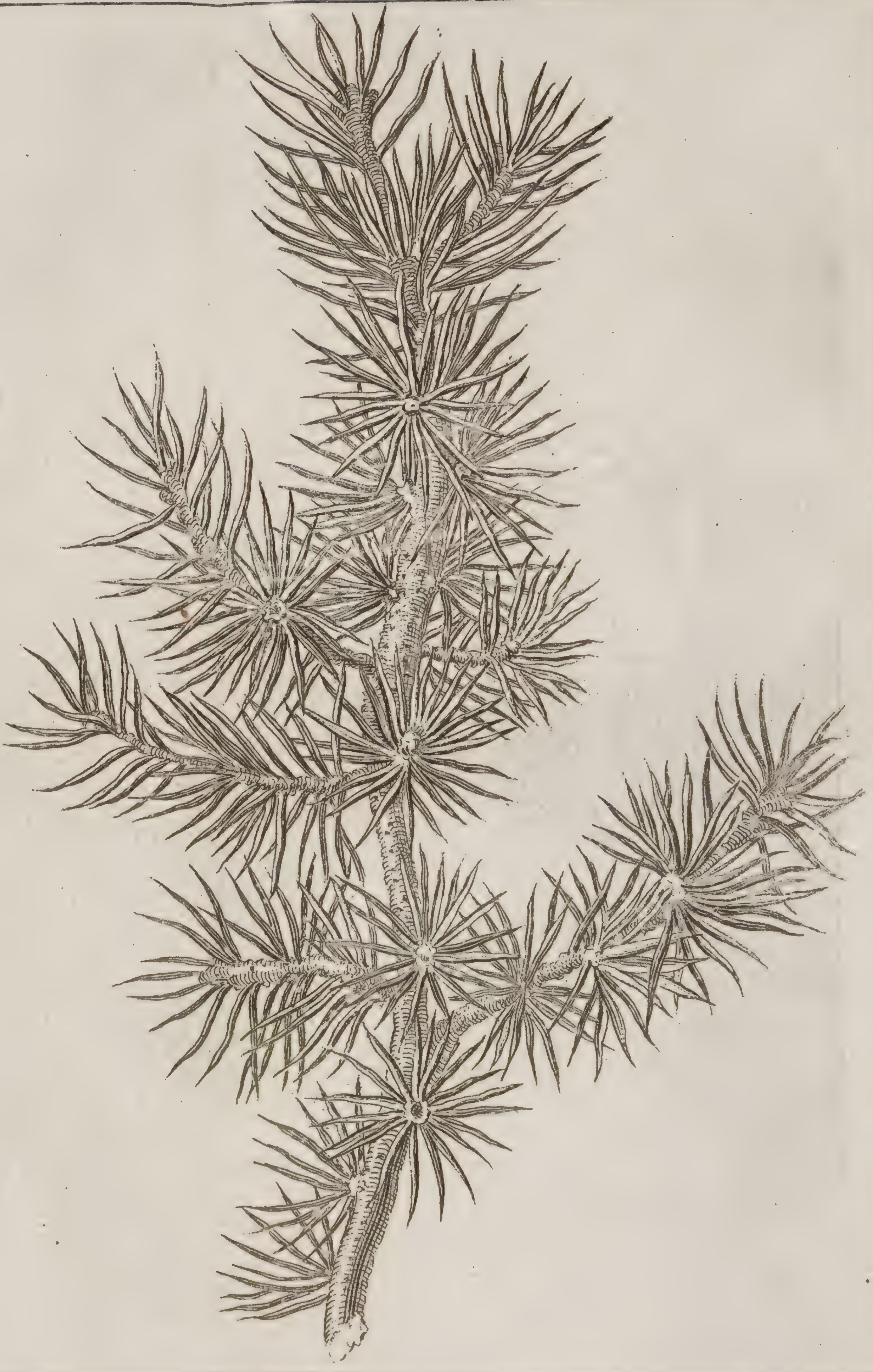
The Yew Tree

I. Mynde Sc

Plate 10 Vol. II page 65



The Cypreſs & its Fruit



The Cedar tree

J. Mynde ſc.

and are every where diſpoſed into a lightſome Spread,
hey form a real Wall of Verdure, whoſe Foundations ſeem
o be laid in the Earth. They then become the moſt agree-
ble Ornaments of Gardens, and regulate their whole Archi-
ecture.

Chevalier. Is the ſmall Yoke-Elm the only Tree capa-
le of aſſuming this Figure?

Count. The lofty Paliſades, as well as thoſe that are
reaſt-high, may be form'd of Lindens, Elms, Beeches,
nd Hazels; but you muſt only employ one Species from
nd to end; becauſe the want of Fraternity in different ſorts
f Foliage is diſagreeable to the Sight, and cauſes impro-
er Vacancies. The leſſer Maple has one Advantage, which
roves a commodious Reſource in Gardens already formed;
nd where ſome Reparation may be neceſſary: For it grows
the Shade, and fills a Vacuity better than any other Plant.
owever, the ſmall Yoke-Elm undoubtedly produces a
ore amiable and laſting Verdure.

The low Paliſades may be made of Myrtle, Yew, Lau-
l, Privet, Hawthorn, and even Pomegranate Trees, if
ou are deſirous of Magnificence.

Chevalier. A Paliſade of Pomegranate-Trees muſt ſure-
ſeem all in Flame, in their flowering Seaſon.

Count. If we have any Inclination to conceal either the
alls or Plots of Ground that are uſeleſs and irregular, or
t much favoured with the Rays of the Sun, and which pre-
t us with no agreeable Appearance; we may form a Pali-
e, or ſome other Figure, of thoſe Trees that thrive,
h a conſtant Verdure, in the coldeſt Places, and can al-
ys be drawn into an Extent of the fineſt Tapeſtry, over
h unpleaſing View. Such, for inſtance, are the Yew,
Ever-green Privet, the Roſin-Tree, the Cedar, the
een-Oak, the Box, the Holly, and the Ivy.

The Ever-greens may likewiſe be employed in forming
ſe Porticos and Paliſades that are to bound the View,
n any particular Apartment; and we find them ſo very
eeable, that their Verdure is frequently imtated by
nted Wood.

hevalier. Thoſe who incloſe their Gardens with an
belliſhment of this nature have no cauſe to be apprehen-
of the Fall of the Leaf.

ount. Every Perſon has a particular Taſte, and nothing
ought

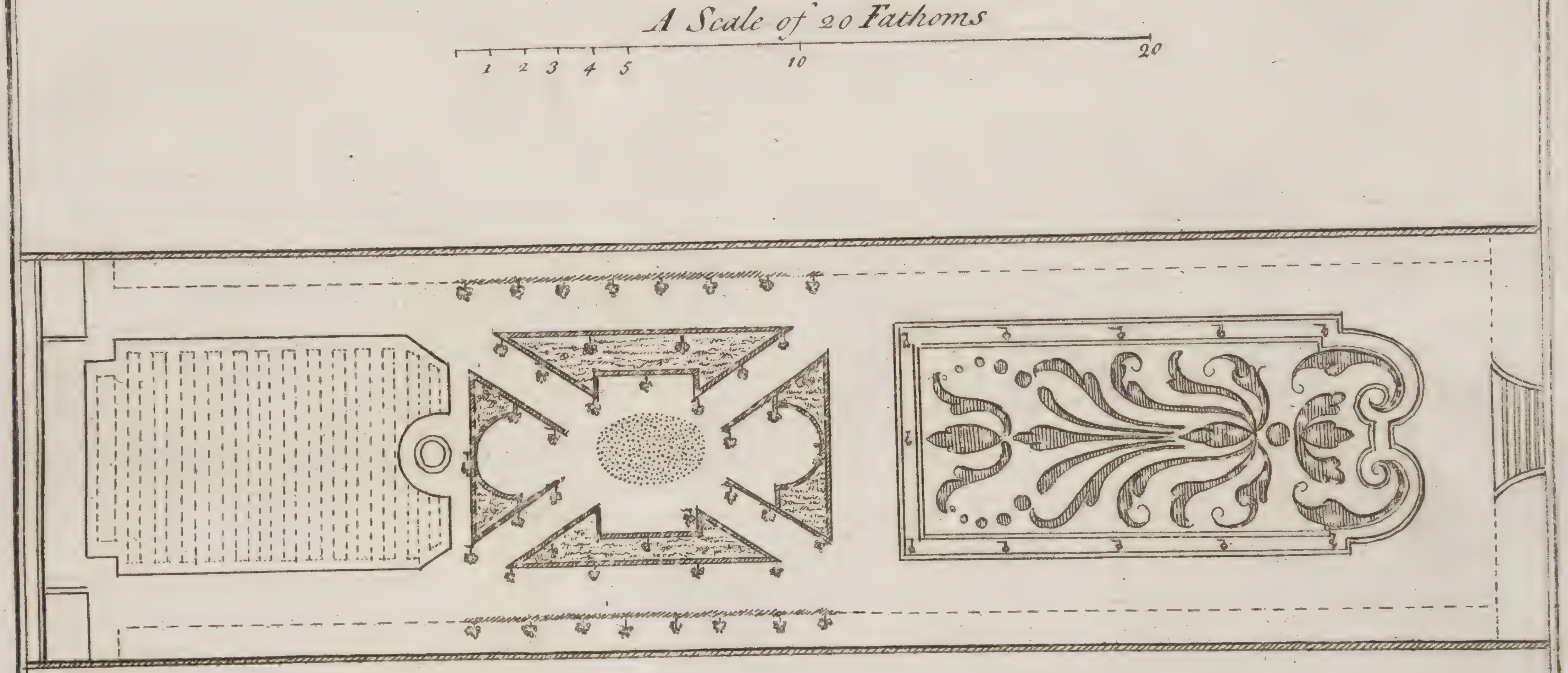
ought to be more unconfined. But when we enter a Garden, we naturally expect to find a real Verdure; as when we viſit a Library, we don't ſuppoſe we ſhall be entertained with painted Books.

Chevalier. If your Lordſhip thinks the Porticos of colour'd Wood, unfurniſhed with Leaves ſo improper, what is your Opinion of thoſe Perſons who crowd their Gardens with Marble, and a Variety of gilded Gaieties?

Count. Thoſe Ornaments may poſſibly be very fine, but I am not certain whether they ſuit with ſuch a Situation. The Taſte perhaps in *Italy* and *France* prevails too much in favour of empty Vaſes, uninſtructive Statues, and Columns without Architrave. But all theſe inſignificant Pieces are ſtill leſs valuable, when they are ſubſtituted in the room of that natural Verdure which ſo delights our View, and is the chief Subject of our Curioſity in a Garden; and I am as little deſirous of meeting with Marble Sculptures, Porticos and Colonades, in ſuch a Place, as I am to ſee a Parterre of Turf in the Area to an Apartment, or a branching Alley of Trees in a Gallery.

Chevalier. I have been ſometimes told, that a Garden is an Imitation of Nature; that the Alleys and Parterre reſemble the Plains: that the Terraſſes repreſent the Mountains: and that Rills and Fountains correſpond with the Sources of Rivers. That we are likewiſe permitted to blend ſome Embelliſhments with our Imitations; as an Alley is more agreeable than a large Road; a Terraſs ſeems better diſpoſed than the Slope of a Mountain; and a Caſcade flows more refreſhing to the Sight, than a Stream that guſhes from a naked Rock.

Count. Theſe Sentiments are very juſt; but you muſt permit me to obſerve to you, that a Garden is not ſo much an Imitation of Nature, as it is Nature itſelf preſented to us in a near View, and adjuſted by the Aids of Art. I have an Inclination, for inſtance, to take the Air, and am accommodated for that purpoſe, with a little Plain, and a length of open Alleys. I am diſpoſed to view the Productions of Nature, for ſome Moments, and am accordingly regaled with a Growth of Flowers and Plants riſing before me, and ranged in ſuch a manner, that the Proſpect of the one is not intercepted by the Appearance of the other. I wiſh to vary the point of Sight, to be covered from the Wind, and to enjoy a ſe-



A Long Plot of Ground
divided into Parterre, Wilderneſs and Kitchen Garden.

J. Mynde sc.

ſerene Solitude, without excluding others from the uſe of
ny Garden. The Terraſſes afford me all theſe different
Advantages: Shade and Freſhneſs are equally deſirable, and
am ſupplied with thoſe gratifying Pleaſures, by improving
ne other Pieces, with a beautiful Thicket and a limpid
low of Water. The Art which forms our Gardens does
ot conſiſt in counterfeiting thoſe Objects, or amuſing me
ith a vain Perſpective; a Succeſſion of Arcades in green
oards; the View of a Hall incruſted with Marble; or
e Sight of ſome *Naiad* reclining on her Urn with a grace-
l Air, and on the Verge of a Baſon perpetually dry. The
eritorious Effect of Art is to aſſemble the Water and Ver-
ure in Reality; to facilitate my Walking, and ſhelter me
om injurious Airs. Art therefore is not the Imitation,
t the Arrangement of Nature; and borrows from her a-
ne each Pleaſure it preſents to my View.

But let us render all due Juſtice to Art, ſince it diſpenſes a
aceful Symmetry to its Aſſemblage of natural Producti-
s. A curious Proprietor of a Tract of a Ground is fre-
ently obliged to form a Garden out of a Plot of Land,
oſe Length is greatly diſproportion'd to its Breadth. But
the Irregularity of that Figure is rectify'd with the great-
eaſe. He divides the whole into three oblong Squares;
firſt of which he forms into an agreeable Parterre, and
poſes the laſt into a fine Olitory. The middle Compart-
nt he appropriates to a Grove, which by riſing between
Diviſions in each Extremity breaks the View of that
agreeable Length. The Grove is traverſed from Angle
Angle, by Tracts form'd like St. *Andrew*'s Croſs: Its
de is embelliſhed with a verdant Hall, and its outward
naments are two bowery Cabinets or green Niches;
of which fronts the Parterre, and the other is oppoſite to
Olitory; The whole Proſpect has an Air of proportion;
l two Alleys, by running parallel with the Walls thro'
ir whole Extent, form long Walks, and a free Com-
nication with three different Gardens.

Another Perſon poſſeſſes a more ſpacious Plot, but trian-
ar in its Form, or perhaps more irregular. This he
ributes into different Diviſions, which are render'd a-
eable by their peculiar Beauties and correſponding Air.
Parterre will be border'd with two large Paliſades; one
which will form the outward Bound of a ſpacious Wood,
inter-

interſected with a Variety of Alleys; the other, by being crown'd with Trees of equal Loftineſs ſeems to preſent us with a ſecond Thicket, in a different Taſte; and we imagine it to be equally extenſive with the other, though in reality it is no more than a Range of Verdure without depth, whoſe Function is to ſhroud a Wall that limits the Plot in that particular Place. Art therefore not only enlarges an Extent of Ground, but unites the moſt diſſimilar Parts, by elegant Connexions, and conceals their natural Irregularity, by the conſtant Appearance of Symmetry. The extreme Parts of the Garden, that ſeem loſt behind theſe regular Lines, are capable of being ſorm'd into Orchards, Nurſeries, Plantations of Fig-Trees and Beds for Melons.

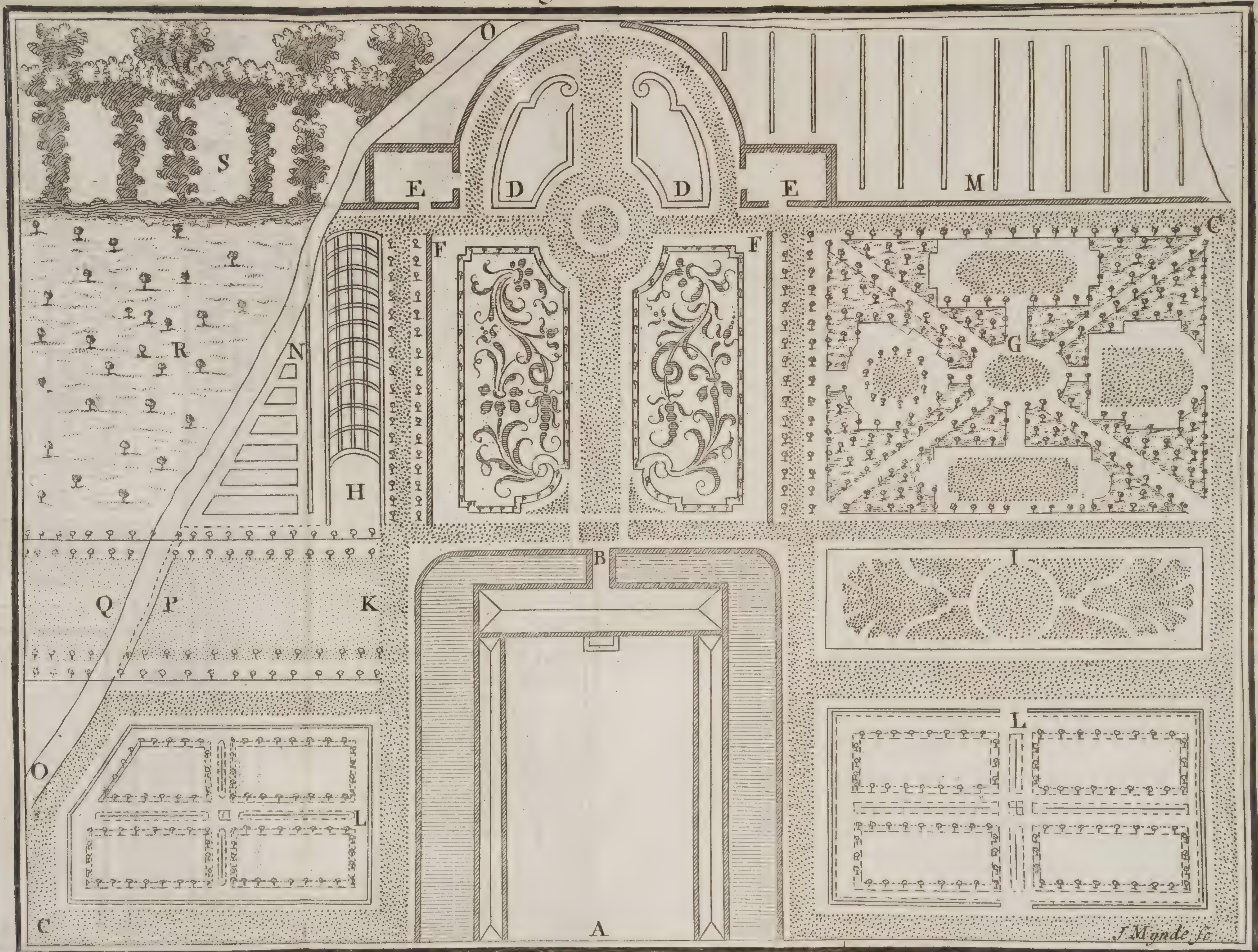
It undoubtedly requires no common Dexterity or Thought, to complete all the beautiful Diviſions of a Garden, in Detail: To ſmooth one part, for inſtance, into a Level; to ſink another into ſuch a gentle Declivity, as will afford a trickling Flow to Rains, without rendering the Walk incommodious: to trace out the due Dimenſions of a Parterre; to ſpread a uniform Surface of Turf; to conduct the Paſſage of a Stream; to extend the Alleys in ſtreight Lines; to round the Arbourets; to ſtrike Viſtas through a Wood, and improve the Proſpect all around. But the great Secret of Art conſiſts in a true Taſte of Nature, and a Capacity to improve her Gifts, and render the whole agreeable and engaging by a juſt Diſpoſition of the Parts.

A ſmall Plot of Ground admits of nothing more than a Simplicity of Deſign, and a Propriety in the Execution. But when the Extent of Land is very ſpacious, and breaks into a number of Inequalities, a great Genius will improve the Whole, and can even cauſe the Irregularities of Situation to diffuſe an Air of Novelty in every Part, and prevent the appearance of a diſagreeable Uniformity, He will not ſuffer the whole Extent of his Garden to be laviſhed in one View, but will exhibit for the firſt Object a large Compartment richly array'd with Flowers, and improved by fine Pieces of Water, and ſtately Trees, and ending iu a Diſtribution of Bowers of Paliſades. The Spectator's Eye is ſatisfy'd with this Proſpect, and requires nothing more: But he is afterward agreeably ſurpriſed, when he finds the Objects, which he imagined to be the Boundaries of his View, are ſo many Openings into a new Order of Beauties.

The

An irregular Garden Plot.

Plate 14 Vol. II page 68

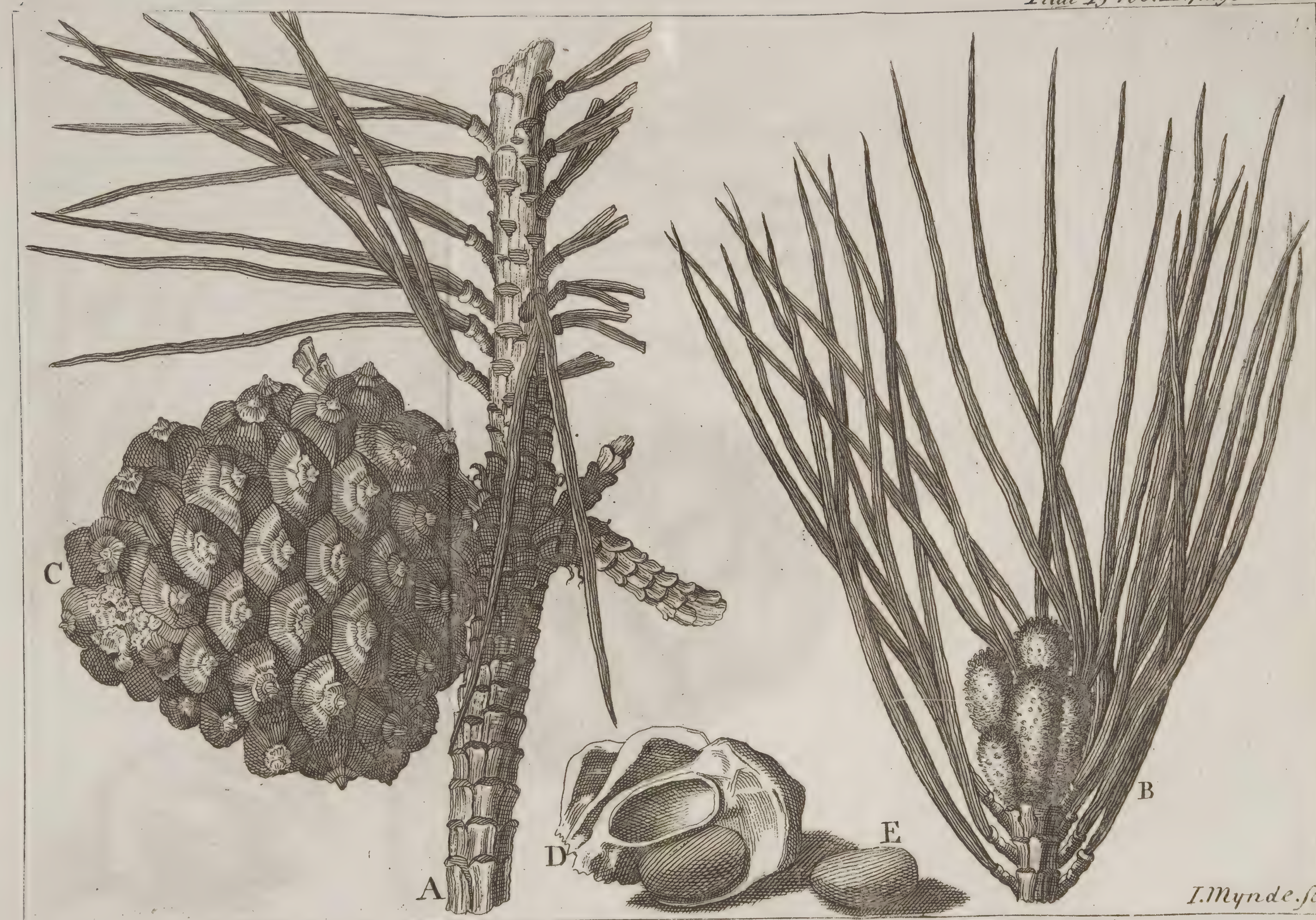


A *The Court Yard and Buildings.*
B *A Bridge over the Foſse.*
C *All thoſe places pointed with dots are Alleys cover'd with Turf.*
D *Large Beds embelliſh'd with Flowers*
E *Verdant Halls*
F *Pali*

H *An Arbour wth an adjoing Terraſs for enjoying a proſpect of the Country R*
I *A Parterre after the Engiſh manner to be view'd from one of ye wings of ye house*
K *A large Alley under ye windows of the other wing & extended to the Country.*
L *A Parterre divided into oblong Compartmts*

N *Another part of the plat diſpoſed into Melon beds*
O *The High Road*
P *A Short Pallisado low enough to Unite the View of the alley K with the Avenue Q*
R *The Country*

Plate 15 Vol. II. page 68



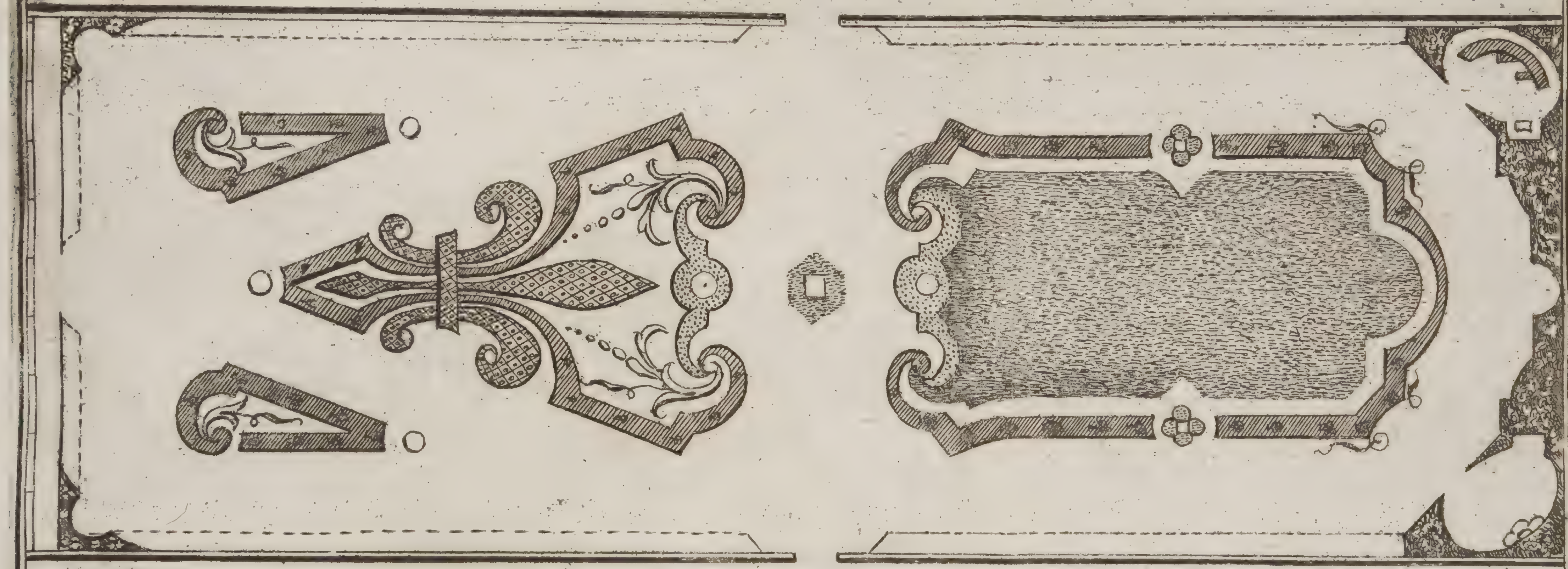
The Pine Tree

A. A Branch of the Pine Tree wth its Foliage & Apple.

B. An Extremity of ye same branch wth its Foliage, & Chives, from whence the powder falls into the Orifices of the Apple C to fecundify it.

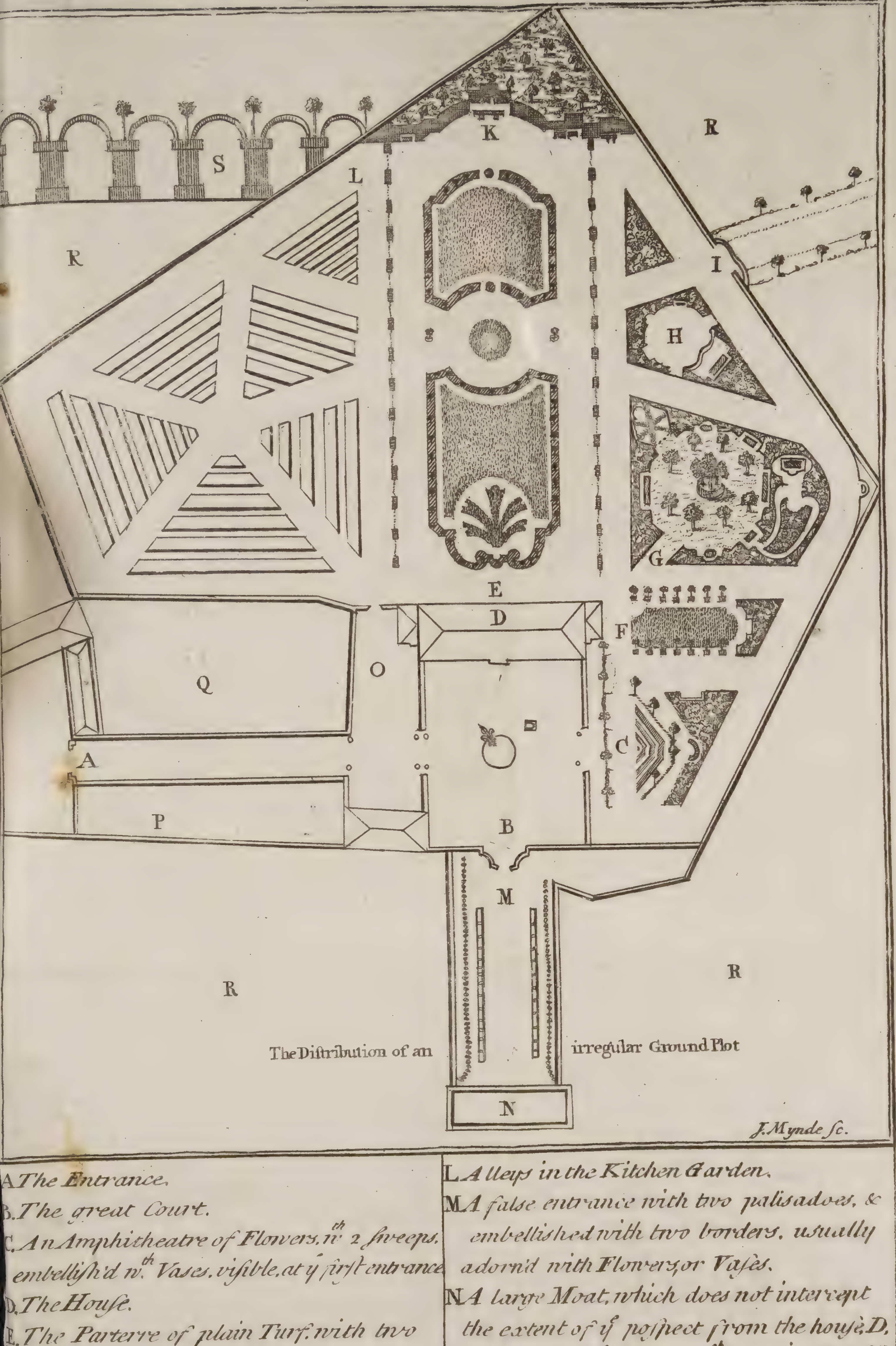
D. Part of the Apple bruised.

E. The Kernel of the Pine Apple taken out of its Nich.



The Diſpoſition of a plot of Ground containing 36 Fathom in Length & 9 in breadth

I. Mynde ſc.



The Diſtribution of an irregular Ground Plot

J. Mynde ſc.

A The Entrance.

B. The great Court.

C. An Amphitheatre of Flowers, wth 2 ſweeps, embelliſh'd wth Vases, viſible, at ye firſt entrance.

D. The Houſe.

E. The Parterre of plain Turf, with two Palisadoes form'd into Arches.

F. A graſs-plat & affording a View to 1 of the (wings.

GHK Benches, Niches, Halls, Cabinets, & other Forms of Verdure of a different Taste.

I. A low Palisado, to unite ye View of the Alley with the Avenue, extended into ye Country. R.

L. Alleys in the Kitchen Garden.

M. A false entrance with two palisadoes, & embellished with two borders, usually adorn'd with Flowers, or Vaſes.

N. A large Moat, which does not intercept the extent of ye proſpect from the houſe, D. to the end of ye Avenue, wch is carried from N.

O. A Yard for Poultry.

P. Stables.

Q. Adjacent Outhouſes.

S. The elevation of the palisadoes that bor- (der the Parterre, and are cut into Arcades.

The full Proſpect of the adjoining Country is likewiſe
nceal'd from him, at his firſt Entrance into the Gar-
n, and he is only permitted to ſee one part of it, as it
ere by ſtealth. You have here, for inſtance, a rural
iew through the long Viſta that fronts the Parterre; and
e Proſpect is more extenſive at the end of that croſs Alley,
rminated by a Paliſade, Breaſt-high; and which has been
wer'd in that manner, to unite the Garden with the out-
ard Avenue, to which it correſponds. The Paliſades
d Groves are not ſuffer'd to riſe to ſuch a Height as would
tercept the Proſpect of the neighbouring Plain and Moun-
ins from the upper Apartments. This View is render'd
ore agreeable by its not being unfolded when you enter the
arden ; and indeed it is a conſiderable Advantage to our
tificial Spots of Ground, when we have no opportunity of
mparing them, in unlimited Freedom, with the magni-
cent Garden of Nature, which would cauſe ours to ſhrink
om our View. It is certainly much more pleaſing to be
rpriſed with the Expanſe of an unbounded Plain, when you
me to the edge of a Grove, or the turn of a Paliſade.
ou may perceive the Effect of ſuch a Diſpoſition, when
e paſs behind that Arbour, in order to ſeat ourſelves on the
erraſs which riſes on the other ſide.

Chevalier. It ſeems as if ſome Perſons had undrawn a
urtain, that conceal'd the Heavens and the Landſkip from
ur View.

Count. We may diverſify the Proſpect as much as poſſi-
e, by paſſing from one Diviſion of the Gardens to ano-
er : New Taſtes and new Characters may riſe before us,
ne part preſents us with an Air of Grandeur ; another has
more ſprightly Appearance. In this place a Star ſhoots
t its verdant Rays, and leaves us uncertain of the Track
e ought to take through the Wood. That opening Hollow
cover'd with a long green Carpet, and reſembles the in-
erted Roof of a Coach. The Arcades of Lindens that bor-
er it; the Vaſes of Flowers that adorn thoſe Arcades; the
agrant Freſhneſs we there enjoy ; the free Circulation of
e Gales ; the Melody of innumerable Birds, who warble
the Branches of that Retreat; every Circumſtance attracts
ur Attention, and tempts you to continue in that delicious
erdure. Another Portion of the Garden glooms with a
litary ſavage Air, and qualifies the Mind for the Sedate-

neſs of Contemplation. In that Quarter every ſolemn Thought is diſſipated, and the Eye wanders over the adjacent Cots and Hamlets. An unfertile Spot, that reſounds with the Northern Blaſts, may be converted into a Grotto, where we may retire from the Heat, and be accommodated with a reviving Coolneſs. An Eminence of difficult Acceſs is aſcendible by a long Flight of eaſy Steps cut in the Earth, and which conduct us to ſuch a delightful Point of View, as makes us reproach ourſelves for not obſerving it ſooner. When we thus can regulate all Plots and Situations in a judicious manner, and are able to complete each Object by Nature's Model, we may diverſify her Aſpects, and multiply her Beauties; We may then ſtrike out open Walks, and cover our ſelves with arching Shades, agreeably to the different Seaſons and Changes of Weather; and if the Day happens not to be rainy; we may be always ſure of enjoying the Benefit of a pleaſing Air, without being incommoded by the Severity of the Winds, or Sun. We ſhall be gratified by theſe Precautions, with all the amiable Stores of Nature; and a ſingle Turn in the Garden, is a little Journey, which we always finiſh with Satisfaction, and find it a ſalutary Exerciſe.

THE

THE Pleaſures and Advantages OF GARDENING in general; AND Of the OLITORY, OR ITCHEN-GARDEN, in particular.

DIALOGUE V.

The PRIOR. *The* CHEVALIER.

or. HOW came you, Sir, to entertain a Thought of making the agreeable Collection you have mention'd?

Cheval. I owe it entirely to you, Sir; when I was laſt in this place you adviſ'd me to read the orgics of *Virgil*, and after that, the Gardens of ‡ *Rapin*, l † *Vaniere*'s Farm; which I have accordingly done.

Prior. I need not aſk you then, if you are become an vocate for a Country Life.

Chevalier. One is certainly tempted to withdraw from ies, after reading thoſe Authors; and their three Poems e inchanted me to ſuch a degree, that I have had them bound in this ſingle Volume, which I call my rural Li-ry.

Renati Rapini Hortor. lib. IV.

Jacobi Vanerii Prædium Ruſticum.

Prior. If we except ſome Fables, in which Father *Rapin* has revived the Gods and Language of the Pagans, without any Neceſſity for that Proceeding, ſince the Fiction is not productive of any uſeful Truth; theſe three Works may be read with perpetual Pleaſure and Improvement. I am ſenſible, that the Publick alone has a Right to decide, whether the *Gardens* and the *Farm* are worthy to be conſider'd as the ſecond and third Parts of the Georgics; but I intend to imitate your Example, and join them together with one common Title, which ſhall be the very ſame that you have ſuggeſted to me.

Chevalier. But may we not enlarge this Library a little?

Prior. Nothing prevents us from increaſing it with ſeveral Paſſages out of *Cato*, *Cicero* *, *Horace* †, and *Pliny* ‡ the Naturaliſt; who preſent us with the fineſt Images of Huſbandry and a rural Life.

Chevalier. Let us not forget the two Villas of *Pliny* the younger ‖. I have lately viſited all their Apartments and Gardens with abundance of Pleaſure, and with Monſieur *Felibien* for my Guide.

Prior. The Works we have mention'd are ſome of the fineſt and moſt delicate in the *Latin* Tongue.

Chevalier. I fancy we may be furniſhed with a Collection of this nature from the *French*.

Prior. I can aſſure you, Sir, that our Tongue, or at leaſt our *French* Poetry, has not any Work of Taſte that deſerves to be ranked in your Plan.

Chevalier. I am extremely ſurpriſed at that, ſince the Subject is ſo fine, that it is impoſſible for Poetry to expatiate in a more delightful Field.

Prior. It is undoubtedly a Subject worthy of the greateſt Maſters. Huſbandry, in particular, has been unattempted as yet, and we have not one *French* Poet who has ſtruck out the leaſt Sketch of it; though it would certainly furniſh a happy Genius with the moſt effectual Means of pleaſing every Reader.

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* Cicer. de Seneƈt.

† II. Sat. VI. & I. Epiſt. 10, 14, 16.

‡ Hiſt. nat. l. 18. cap. 2.

‖ Plin. jun. Laurentinum, l. 2. Ep. 17. & Thuſci l. 5. Ep. 6. Vide Les Maiſons de Pline, par Felibien.

Pray inform me, Sir, as we are walking toward the Kitchen-Garden, whence proceeds the ſingular Delight you experience in reading thoſe amiable Writers that compoſe your little Collection? I am ſenſible their *Latin* is pure, and their Paintings repreſent Realities; but they ſhare theſe Qualifications in common with other Authors: Why then are they more agreeable to you than all the reſt?

Chevalier. The Pleaſure they afford me, proceeds undoubtedly from their Choice of rural Objects.

Prior. I am of the ſame Opinion; and we may eaſily foreſee they will always be read, becauſe their Subject is not obnoxious to the Viciſſitude of Years, or the Caprice of Taſtes. We are generally born Gardeners, and our firſt Inclinations tend to the Culture of Fruits and Flowers. We are divided with reſpect to all other Articles; and our Taſte for Huſbandry is the only Diſpoſition that re-unites us. Whatever Difference the Neceſſities of Life, or the Cuſtoms of Society may create in our uſual Employments, we always remember our original State. Man, in his firſt Innocence, was deſtined to cultivate the Earth; and we have not loſt the Idea of our ancient Nobility: every other Condition of Life ſeems to ſubject or degrade us; but whenever we diſengage ourſelves from our common Occupations, and can breathe in Freedom for a few Moments, we are ſenſible of a ſecret Propenſity to Gardening. The Merchant thinks himſelf happy, when he has an Opportunity of paſſing from his Compting-houſe to his Flowers. The Mechanic, whom rigid Neceſſity always fixes to the ſame Place, adorns his Window with a Box of Verdure. The military Man and the Magiſtrate are equally ſolicitous for a Country Life, and retire, for ſome Months at leaſt in each Year, from the Court, the City, and the Hurry of Affairs, to enjoy the Charms of their rural Eſtates. Gardening is then their favourite Language, and the Generality of them are emulous to underſtand its fineſt Operations. In a Word, the Cultivation of a Garden is only diſreliſh'd by a falſe Taſte, and a depraved Delicacy of Thought.

Men of the fineſt Genius and moſt exalted Stations have diſtinguiſhed themſelves, in all Ages, by a remarkable Inclination to the Culture of the Earth. This Inclination is even now conſider'd as the Panegyric of *Solomon*, King *Uzziah*, the younger *Cyrus*, *Fabricius*, *Hiero*, *Maſiniſſa*, the

Emperor *Probus*, *Charles* the Fifth, and *Lewis* the Fourteenth.

Chevalier. I know that *Lewis* the Fourteenth cauſed the Gardens of *Verſailles* to be form'd from the Deſigns of Monſieur *Le Notre*, but did not imagine he ever made Gardening his particular Amuſement.

Prior. When he had been converſing for ſome time with Marſhal *Turenne*, or Monſieur *Colbert*, he entertained himſelf with Monſieur *de la Quintinie*, and frequently took a Pleaſure in ſhaping a Tree with his own Hands. I ſhall not tell you, that the Earth was conſcious of the Honour of being cultivated by Hands accuſtomed to a Scepter: But you will readily acknowledge, that a Plant could not fail of Succeſs, when it was govern'd by the ſame Prudence that conducted the State. We may even ſay, that every thing is more proſperous under the Hands of Heroes *, becauſe they devote more Care and Precaution to the Management of each Particular they undertake. We are now arrived at the Kitchen-Garden, let us walk in.

Chevalier. This is the firſt Viſit it has received from me this Seaſon. What a Scene of Order and Elegancy is here!

Prior. It is a real Republick in every Particular. A ſkilful Hand has parcelled out all the Land, and aſſembled a whole People of Plants, aſſigning to each its proper Dwelling and Situation. Thoſe Families that are ſprung from the ſame Original are lodg'd apart in diſtinct Cantons, and form as many different Communities. Their Multitude never creates any Confuſion here; and you may obſerve a general Propriety and Regulation diffuſed thro' the Whole.

In order to prevent the Citizens of this State from being injurious to each other, and that the great ones may not impoveriſh their Inferiors by engroſſing the nutrimental Juices of the Earth to themſelves, the ſmaller Plants have ſuch a Portion of Ground allotted to them, as ſuffices for their Support, and at a proper Diſtance from thoſe Trees which demand a copious Suſtenance, and muſt be lodged more at large. Or if they ſometimes approach each other, and are obliged to live together in one Society, the ſtrongeſt Trees are then curbed by ſuch ſevere Laws, as render them incapable of being injurious to the leaſt Species of Pulſe;

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* Plin. Hiſt. nat. l. 18. c. 2.

and the vigilant Care of a good Government cauſes the whole Tribe to flouriſh in perfect Harmony with each other.

Chevalier. I not only admire the Order I here diſcover, but am equally affected with the Beauty that appears in every Part.

The Beauty of a Kitchen-Garden.

Prior. It is the Order itſelf which conſtitutes that Beauty.

Chevalier. I obſerve that the Eſpaliers, which cover the Walls, riſe exactly to the ſame Height, and not a ſingle Leaf is permitted to advance above another.

Prior. One would be apt to take them, at the firſt View, for a Set of fine Tapeſtry.

Chevalier. Thoſe Buſhes that edge the Squares are form'd in the utmoſt Perfection.

Prior. They are ſo many natural Vaſes that embelliſh thoſe Alleys, and are infinitely more amiable than ſuch as are formed out of Marble and gilded Metals.

Chevalier. Where-e'er I direct my View, either through the Alleys, or over the Beds of Herbage, I obſerve a regular Extent, and a perfect Symmetry; and am not able to determine whether I ought to give the Preference to the Parterre, or the Olitory, even with reſpect to the Charms of Proſpect. This is a Point, Sir, which I leave to your Deciſion.

Prior. The Parterre, indeed, is more lively and dazzling, at the firſt View; but the Olitory will attract the Spectator's Eye for a longer time, and create more Satisfaction in his Mind. A Parterre is a Beauty that ſeems a little too much adjuſted by Art, and its Anxiouſneſs to pleaſe is render'd too apparent: But this Foible is excuſable in a Parterre, which is only formed to amuſe us with a tranſient Pleaſure. The Graces of an Olitory have more Reality, and a much eaſier Air; and, beſide the Softneſs of its Colours, with the Symmetry and Grandeur of its Appearance, it enjoys two Qualities that are ſtill more valuable: I mean, an extreme Simplicity, and a very extraordinary Uſefulneſs. Simplicity is the right Adjuſtment of the Amiable, and exhibits it in its full Merit; and all the World allows Uſefulneſs to be the completeſt Inſtance of Perfection.

Chevalier. Is this Simplicity ſo great as you repreſent it, ſince I obſerve it to be intermixed with a Variety of Flowers?

Prior. It is ſo indeed; but they don't owe their Arrangement either to Art or Study. No particular Care has been taken to plant them where they now make their Appearance, and they preſent themſelves to our View in a ſpontaneous Bloom. They reſemble thoſe Graces of Youth which Nature is induſtrious to embelliſh; and we are no longer touch'd with any Agreeableneſs, than while the Solicitude to diſcloſe it ceaſes to be apparent.

Chevalier. The Competition in this Particular is to the Diſadvantage of the Parterre. But if the Kitchen-Garden triumphs in the Month of *May*, what may we not expect from it in *September?*

The Fertility of a Kitchen-Garden.

Prior. I am not for limiting its Merit to the Flowers of Spring, nor the Fruits of Autumn; ſince it enriches its Maſter with new Preſents through the whole Courſe of the Year.

The moſt ſalutary of thoſe Productions, with which the Earth arrays its Hills, and Plains, and Valleys, may be aſſembled in an Olitory for the Uſe of Man. This is his great Magazine of Suſtenance, Remedies and Amuſements. There does he daily gather the verdant Produce of the Seaſon, and is able to diſtinguiſh the firſt Rudiments and improving Growth of thoſe Gifts that will afterward riſe to his Hand; by which means he enjoys, at the ſame time, the preſent Plenty and the Promiſe of a future Fertility. It muſt delight him beyond Expreſſion, to viſit a Place where every Object tenders him ſome agreeable Preſent, and ſeems kindly ſedulous to ſupply his Wants, and regale his Taſte with all the Varieties he can deſire.

Vineyards and arable Lands preſent us with their Productions but once a Year, and then remain unactive for ſeveral Months; nay, a whole Year's Repoſe is often neceſſary to recruit their exhauſted Vigour. The Kitchen-Garden, on the contrary, preſents us with a ſpeedy Succeſſion of new Crops, and continues its Liberalities even in the Winter-Seaſon, by ſeeming to reſerve for that particular Portion of the Year thoſe Fruits and vegetable Food which may be kept for a conſiderable time; that ſo we may always enjoy its Favours, even when the ſevereſt Froſt has lock'd up its Treaſures, and interrupted the Courſe of its Services.

Chevalier. You aſcribe the fineſt Intentions in the World to this ſort of Garden; and its Productions are really attended with ſuch Circumſtances, as ſeem to reſult from thoſe very Intentions.

The Succeſſion of Fruits and Herbs.

Prior. The Intentions to ſupply us with Fruits and Herbage, at regular Seaſons, and in proper Quantities, are undeniable Realities, and you know where they all reſide. The Author of Nature has intermixed a wiſe Oeconomy with a boundleſs Profuſion, and diſpenſes the various Kinds of Fruits and Herbs in ſuch a manner, as qualifies them to cover our Tables through every Seaſon of the Year. He cauſes them to ſucceed each other without Interruption and without Confuſion. Inſtead of laviſhing all his Liberalities at once, and to ſuch a Degree as would overwhelm us with their Luxury, he rather chooſes to render them grateful, by imparting an Air of Novelty to each Species. His Bounty begins with the Delicacy of red Fruits, and continues to ſupply us from Month to Month, or rather from Week to Week, with new Kinds, and of all Qualities and Colours; but they are not preſervable for any Length of Time, becauſe they are ſoon to be ſucceeded by others. He reſerves for the ſevere Seaſon thoſe Productions that acquire a firm Conſiſtence; and when the Earth is even chill'd with Cold, and diſcontinues its Fertility, the Store-room where the Fruits are depoſited communicates to ſome Species a gradual Maturity, which the Tree refuſed them. This gracious Precaution ſupplies the Winter with a Harveſt peculiar to it, and preſents us with Fruits that are unknown in every other Seaſon. Thus is the Year render'd a perpetual Circle of Flowers and Fruits. Part of this Circle is frequently unadorned with Flowers; but the Fruits never leave any vacant Spaces. You may demonſtrate this Truth, by taking a particular Survey of thoſe Productions that grace an Olitory in a regular Succeſſion; and you will be ſenſible that this Liberality is never interrupted.

Chevalier. Such a Garden as this ſeems to be a perpetual Source of Accommodations.

Prior. It is certainly an Enjoyment well worth procuring, and nothing is more conſiſtent with the preſent Mode than a fine Olitory. Reaſon therefore may ſometimes happen to correſpond with a reigning Faſhion.

Chevalier. We have a Garden intended for this Uſe at our Country-Seat; but it muſt be laid out in ſome new Manner, becauſe nothing ever thrives in it. Be ſo good, Sir, as to let me know what Diſpoſition you would give it were the Ground yours. It forms a very ſpacious Square; but I am for ſpreading Deſtruction through the whole, and would then conſign it to your Management: You may extend your Lines, and plant it as you pleaſe, and have full Liberty to alter it in every Particular as you think proper.

Prior. The Plot of Ground, upon which you would employ me, may perhaps be uſeful in any Form but a Kitchen-Garden.

Chevalier. The Architect thought it the propereſt Spot to form an agreeable Figure with the reſt; and it will be difficult to apply it to any other Uſe.

Prior. When a proper Situation for a Kitchen-Garden is to be choſen, it is ſometimes ſaid, that we ought rather to have recourſe to a Gardener, than to an Architect; leſt the Conſideration of mere Symmetry, and Commodiouſneſs of Proſpect, ſhould prove an Inducement to fix on a Soil that will create abundance of unavailing Expence to improve it into Fertility; ſince all the Culture and Induſtry you can employ upon it may perhaps be incapable of changing the Malignity of its Nature. I ſuppoſe the Plot of Land which you have commiſſion'd me to manage as I pleaſe is not ſo intractable; and I will now give you the proper Idea of a Kitchen-Garden, which can never be complete without theſe five different Advantages: A good Soil, a favourable Aſpect, a beautiful Diſtribution of the Ground, a ſufficient Quantity of Water, and a proper Choice of Plants. This is a very copious Subject, and we will reſerve it, if you pleaſe, for our Entertainment to-morrow. Let us therefore finiſh our Walk at preſent, when we have read the firſt Paſſage of *Vaniere*'s Farm, that preſents itſelf to our View when we open the Book.

Chevalier. I perceive he is your Favourite Poet.

Prior. He is the Author who gave me a Reliſh for Reading, when I was of your Age. The firſt Ideas that create agreeable Impreſſions in our Minds are always moſt permanent, and afford us the greateſt Pleaſure when we recollect them.

THE DISPOSITION OF AN OLITORY, OR KITCHEN-GARDEN.

DIALOGUE VI.

The PRIOR. *The* CHEVALIER.

Chevalier. WE are now to form a complete Olitory, and muſt therefore unite in one * Plot a good Soil, a favourable Aſpect, a beautiful Diſtribution, a Supply of Water, and a proper Choice of Plants.

Prior. We have liberty to make the Model as perfect as we pleaſe in our Converſations, and may diſtribute all our Materials to the beſt Advantage.

The Temperaments of Earth in general may be diſtinguiſhed into theſe three Claſſes; Sand, Loam, and Clay. Sand is a Collection of ſolid, ſtony, and looſe Particles, of a roundiſh Form, and almoſt incapable of any Coheſion with each other. The Parts of this Earth, in proportion to their Enlargement and

Sand.

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* Inſtruction de M. de la Quintinie. The Art of Husbandry, by J. Mortimer.

Variation from a globular Figure, are gradually changed into Gravel, or a Couch of Pebbles. Theſe different ſtony Soils are capable of receiving Water, Oil, Salts, Fire, Air, and all the Principles of Vegetation, into their Interſtices; but can never retain them for any conſiderable Time, ſince the nutrimental Mixtures ſlide through the Vacuities as eaſily as they at firſt filled them. The Cultivation therefore of this Kind of Land is ſeldom productive of any fertile Effects.

Pure Earth.

Pure Earth on the contrary is a Maſs of little Clods, extremely fine, and probably of a cubical Form, qualified for an intimate Conjunction with each other, and for continuing imbodied in that manner. When the Earth is very compact, and its conſtituent Particles are not ſeparated by any Cavities, it forms Soils of Clay, Marl, or Chalk, which retain the Juices they receive; but are not very tractable to the Impreſſions of Water, Heat, and Air. The Fibres of Plants can hardly penetrate theſe Soils, and their Culture is rendered very difficult, I may venture to ſay impracticable.

Loam.

Loam, or that Earth which is a Medium between Sand and Clay, is a Powder which partakes of the Pliancy of Sand, and the Conſiſtence of pure Earth, and may be called a Compoſition of minute ſupple Maſſes; ſomething ſpungy in their nature, and eaſily diſunited by Labour. They readily open to the Influences of the Air, and are very retentive of what they receive. Plants can ſhoot their Fibres into this Soil without any Obſtruction, and are there accommodated with a copious Nouriſhment.

Chevalier. Happy is that Perſon, who can form his Kitchen-Garden in a Soil of this Nature, which preſerves a Medium between compact and light Earth. But how can we know whether the Land be ſuitable for our purpoſe.

The Marks of a good Soil.

Prior. That juſt Temperament of Soil, which I call Loam, is manifeſted by the Pliancy of the Parts that compoſe it, and by the Vigour of its Productions. But we too often meet with a Diſproportion in its Qualities, and this Earth of an intermediate Nature may be ſandy in ſeveral Degrees, without being Sand itſelf; or it may reſemble Marl, without having any real Intermixture of that Subſtance.

Chevalier. When a Soil is either too lean or too compact, are there no Methods of rectifying thoſe Defects?

Prior. Our Gardeners endeavour to correct them with a Variety of Manures; by which I mean thoſe Earths or Compoſts, which they ſpread over their Gardens to render them fertil. They lay Horſe-Dung, which is light and dry on a Soil of Mould, whoſe little Clods are apt to imbody with each other; and they appropriate to a ſandy Soil an Intermixture of Cow-Dung, which is fat and binding. They endeavour by theſe Expedients to give Conſiſtence to the one, and Rarefaction to the other, which is a very judicious and profitable Proceeding.

Manures.

Thoſe Proprietors of Land, who are induſtrious, have recourſe to a Method ſtill more efficacious and durable in its Effects, ſince it ſtrikes at the Cauſe of the Evil. They open the Ground to a certain Depth, either in their Garden or ſome adjoining Spot, and endeavour to find a Bed of Earth entirely different in its Qualities from the Land they would rectify. They intermix and thicken a dry and ſandy Soil with a proper Quantity of Mould, or at leaſt with a marſhy Earth, which is frequently no more than a black and binding Loam. But they open and diſunite a marley Earth, by mixing it with a large Quantity either of River-Sand, or of that which is found in Subterranean Veins of Gravel. When the Earths are thus blended together, they are thrown into Heaps till the different Ingredients have had Time to incorporate in a proper Manner. The Beams of the Sun, the Winds and Froſts, together with the conſtant Action of the Air, will complete the Preparation of the whole, and we may then plant in a Soil entirely new.

But as we acquire our Knowledge by very imperfect Degrees, and may be eaſily deceived in the Choice of a Soil which appeared to us ſufficiently qualified to improve our own Land; it will be prudent to make the firſt Experiments on a ſmall Quantity of Earth, till we are ſatisfied by very apparent Succeſs, that our Endeavours to meliorate the whole will not be ineffectual.

As to other Circumſtances, whether you intend to fertilize all the Ground of your Kitchen-Garden by theſe Intermixtures; or whether you limit your Improvements to ſome particular Squares or the Trenches you appropriate to your

Trees; the two eſſential Points are your permitting the blended Soils to lye fallow, a Year at leaſt, before you begin to plant; and your completing the Mixture not in a parcimonious Manner, but to the Depth of three or four Feet: Otherwiſe, your Trees and ſeveral Species even of your Herbage, will inevitably periſh, when their Roots begin to penetrate into another Vein of Earth, which will wound them by its unpliant Coheſion, or parch them up by its Dryneſs.

Chevalier. I am ſenſible that if the Soils be intermixed to the Depth you have mentioned, the good Qualities of the one will reform the Imperfections of the other: But ſurely this muſt occaſion a dreadful Expence.

Prior. If the Garden-Plot be very extenſive the Attempt will certainly prove too chargeable; but there are other Expedients to rectify part of its Defects at a very moderate Coſt. If the Soil, for Inſtance, be groſs and difficult to be moved, or ſpungy to an extreme Degree, the ſquare Compartments of the Garden ſhould be a little raiſed toward the Middle, and ſunk at the Extremities into two imperceptible Slopes; by which Means the Water that would chill the Beds, were it to remain upon them too long, flows off toward the Alleys, and may ſink into ſuch a Drain as will convey it to the Ditch that bounds the Garden.

When the Soil happens to be dry and porous, the ſquare Beds ſhould be ſunk a little lower than the Alleys, or it may be ſufficient to raiſe the Paths higher than the Beds, in order to ſecure them a proper Humidity in every Part, and to afford the Herbs and Roots the Refreſhment of due Waterings.

But whatever may be the Nature of the Land, we find an excellent Effect from clearing the Alleys of their Snow in the Winter-Seaſon, and throwing it on the Beds, whoſe Fertility is greatly improved by this Method.

Chevalier. Are there any Soils incapable of being rendered fruitful?

Prior. There are two Sorts, which it would be better to abandon entirely, than riſk the Expence of a Kitchen-Garden upon them. Theſe are the ſtony and the chalky Soils.

Next to the Temperament of the Earth, which undoubtedly merits the firſt Attention, ſince it is chiefly conducive to the Plenty and Flavour of the Productions of an

Olitory, no Circumſtance is more important than the Situation: And this may properly be ſaid to be good, when it ſhelters the Garden from incommoding Winds, and lays it open to that Aſpect of the Sun which is moſt beneficial.

Chevalier. Are not all Winds injurious in Proportion to their Violence? How then are their fatal Effects to be evaded?

Prior. We at leaſt ſhould endeavour to be ſheltered from thoſe that are moſt pernicious; I mean the *Northern* Blaſts, or thoſe of the *North-Weſt*, and all tempeſtuous Winds. We may ſay of the firſt of theſe, what the Scripture declares with Relation to a victorious People, whom God in his Wrath cauſed to march forth. * *The Land is as the Garden of* Eden *before them, and behind them a deſolate Wilderneſs.* The Country was a verdant Paradiſe before their Approach, but was rendred a dreary Deſert by their Paſſage through it. The Breath of the *North-Weſt* is not ſo deſtructive as that of the *North-Eaſt* Wind, but it checks every Plant that begins to bloom, and its Diſcontinuance is frequently preceded by a Tempeſt of Hail, which in a few Moments lays waſte all the luxuriant Promiſes of the Spring.

Tho' theſe two Winds are commonly the moſt malignant of all, yet there are others to be dreaded in every Situation we can poſſibly chooſe: We ought therefore to conſider thoſe particular Quarters which are productive of the moſt dangerous Blaſts; and eſpecially the Quarters which engender ſuch Storms as ſtrip the Trees of their Fruits.

Chevalier. Of what Advantage is a Knowledge of this Nature? We may eaſily diſtinguiſh the Regions from whence the Winds blow, but how can we prevent their Effects?

Prior. A Kitchen-Garden may be defended from the Inſults of thoſe Winds that are moſt to be feared; either by a lofty Wall or a ſpacious Edifice, or we may cauſe theſe Blaſts to be intercepted by a large Wood which breaks all their Force; and this is the Expedient practiſed in *Normandy* and *Britany*: Or elſe we may form the Kitchen-Garden under the Shelter of a Hill, which ſhuts up all Avenues to it.

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* *Joel* ii. 3. Quaſi Hortus voluptatis coram eo, & poſt illum ſolitudo deſerti.

The Benefit of a fine Sun-ſhine is as much to be deſired for ſuch a Garden, as the noxious Winds are to be dreaded. A Situation to the *South* is generally the moſt eligible of any, unleſs your Land be extremely light and thin; for it will then be exhauſted by too much Heat. An Opening to the *Eaſt* is likewiſe more eſteemed than one to the *Weſt*, but a *Northern* Aſpect is the worſt of all, if it be not recompenſed by an excellent Temperament of Soil.

Chevalier. I doubt a Plot of Land entirely expoſed to the cold Winds will never produce any Thing good.

Prior. We, however, ſee ſome Inſtances to the contrary; the admirable Wine of *Sillery* grows on the Declivity of *Verzenai* which ſlopes to the *North,* without the leaſt Shelter, and lyes obliquely to the Sun.

Chevalier. What you have obſerved, Sir, of the Situation of a Garden in general, may certainly be ſaid of each particular Wall. The beſt Eſpaliers, therefore, are thoſe which are viſited by a *Southern* Sun; and next to this Situation we approve of a Wall placed to the *Eaſt.* Be ſo good as to inform me, Sir, to what Trees theſe Expoſures are appropriated, I have ſometimes ſeen Peaches and Pears that have been rather ſcorched than ripened, in a Poſition to the *South.*

Prior. A *Southern* Eſpalier is reſerved for Winter Bonchrêtiens, Muſcadine Grapes, and all thoſe Fruits that are not eaſily ripened. A Wall that fronts the riſing Sun is more proper for Peaches, Apricocks, and ſome Species of exquiſite and tender Pears, whoſe Colour we have an Inclination to heighten. A *Weſtern* Expoſure has likewiſe its Merit, but a *Northern* is the leaſt favourable of all, for the Sun, even in the longeſt Days, can only viſit that Quarter with a few ſcattered Rays, diveſted of their genial Warmth.

Chevalier. His Lordſhip, the Count, gave me an Opportunity of obſerving, that he had made every Wall in his Kitchen-Garden acceſſible to the Sun. Inſtead of cauſing the four Walls directly to front the four Quarters of the World, he oppoſed to thoſe Regions the four Corners that join the Walls. In conſequence of which Diſpoſition, the riſing Sun warms the two Eſpaliers that unite in the *Weſtern* Point; when he gains his Noon-day Height, he ſheds his Heat along the two Walls that join to the *North*; and when he ſinks to the *Weſt,* he darts his Rays on the Walls that point to the *Eaſt.*

Prior. All the Parts of the Garden therefore receive his benign Impreſſions, and every Wall is covered with a uniform Verdure.

As the extraordinary Benefit, that reſults from proper Expoſures, peculiarly relates to the Eſpaliers, Care is taken to ſtrengthen the Reflexion of the Sun-beams by a very white and ſmooth Parget, which exactly cloſes all the Cavities that would otherwiſe imbibe or deflect the Light.

Chevalier. The ſame Expedient chaſes away Rats, Mice, Dormice, and all noxious Animals, and compels them to ſearch elſewhere for their Prey. I muſt now, Sir, deſire you to inform me what particular Wood is uſed for the Lattice-Work which ſuſtains the Eſpalier, and beautifies the whole Garden.

Prior. The Heart of Oak or Cheſnut is appropriated to this Uſe, and the whole ought to be well-joined and preſerved from putrifying, by being painted firſt with a Lay of white Lead, and afterward with two Lays of Mountain-Green liquified into an Oil. Such a Lattice-Work as this will laſt between thirty and forty Years.

Chevalier. By what Means, Sir, could you form the Eſpaliers of your Priory into ſuch an elegant Air, without the Aid of Lattice-Work?

Prior. I had recourſe to the ſame Expedient which is now practiſed by ſeveral Perſons of Taſte. Inſtead of the Lattice of Wood-work, which frequently affords a Retreat to a Number of Enemies, we may form a Lattice of large Wires, which proves as ſerviceable and laſting as the other, and is completed at a very moderate Expence.

Chevalier. As I look through the Bars of the Door that opens into the Melon-Ground, I obſerve the Top of the Walls covered through their whole Extent with a Kind of little Roof, of whoſe Uſe I am entirely ignorant.

Prior. A Gentleman of the Army who has long made the Cultivation of Fruits his Amuſement, amidſt his Solitude in Times of Peace, and whoſe extraordinary Succeſs renders him worthy to be recommended as a Model, has added to the Parget and Lattice-Work ſuch a Kind of Pent-houſe as is raiſed upon that Wall, and its Function is to complete the Efficacy of good Situations. Several ſmall Bars of Iron or Wood about two Foot long are inſerted horizontally into the upper Part of the Wall, and at a regular Diſtance from each other, in order to ſupport one or two Planks, which are to be removed whenever we are diſpoſed to afford the Leaves a proper Refreſhment of Rains and Dews. This Roof, by intercepting the Action of the Air above, prevents the Tree from ſhooting that way with any extraordinary Vigour, and cauſes it to expand to the Right and Left. It likewiſe effectually covers the Eſpaliers during the ſevere Froſts, and ſhelters the Buds and Fruits from the Inclemency of Hail-Showers. In a Word, it preſerves the upper Part of the Tree from the Drippings of the Wall, which by falling perpetually on the ſame Branches, either rot or hollow them, and cauſe a glutinous Fluid to be ſhed over them.

The Diſtributi-on of the Plot.

When the Poſitions and Incloſure have been properly regulated the Diſtribution of the whole Plot is the next Circumſtance to be conſidered. It may be divided into two, four, or ſix Squares formed with Cut-work, and ſurrounded by large Alleys. But inſtead of theſe ſquare Diviſions, the whole may be parcelled out into four Triangles, ſeparated by two Alleys that correſpond with the Figure of St. *Andrew*'s Croſs. The Centre is adorned either with a pleaſing Fountain, or the ample Round of a Baſon.

We think it natural to behold a very ſpacious Alley when we firſt advance into the Garden, and if the Entrance be exactly in the Middle which is moſt regular, the Diſtribution into Squares will then ſeem neceſſary, in order to preſent a fine Alley in Front, and another in a tranſverſe Line to the View of thoſe who enter. If we are obliged to place the Entrance into the Kitchen-Garden in ſome Corner, we may then have recourſe to the croſs Diviſion, that we may enjoy at our firſt Approach the ſudden Proſpect of three Alleys: namely, thoſe that run parallel with the two Walls, and that which traverſes the Triangles. But ſince the Extremity of theſe Pieces would diſfigure the Ground-Plot by their pointed Forms, we uſually bend them into a Semicircle, which enlarges the Place, and gives the Entrance a more graceful Air.

Chevalier. I am very much ſurprized to ſee a Diſtance of ſeven or eight Feet left between the Walls and the Border of the Alleys.

Prior. **That Vacancy is intended** for the Cultivation of ſeveral forward Plants of different Kinds, in a Shelter from injurious Air, and beneath the Reflexion of the Sun-Beams, and the beneficial Effects of the Compoſt, the Culture, and the frequently repeated Waterings, are always imparted to the Roots of the adjoining Fruit-Trees.

Chevalier. I imagined this Tract of Ground had been entirely loſt; but I now perceive you can employ it to a double Advantage.

Prior. Let us return to the Squares. The Border that ſurrounds them, and in which ſeveral buſhy Dwarf-Trees are diſpoſed, is adjuſted by the Verge of the Alley on the one Side; and on the other, by the Track which limits the Beds that are formed in the inward Space of thoſe Squares.

Chevalier. I ſee the Dwarf-Trees are planted at a conſiderable Diſtance from the Verge of the Alley, and very near the Beds in the Square; but would not they have produced a better Effect, if they had been diſpoſed exactly in the Middle of their own Bed?

Prior. They are ranged at the Diſtance of five Feet from the Verge, that the Branches may not encroach upon the Alley when they are expanded into their full Growth; and as to the Track next the Square it may be then ſtruck farther in, by diminiſhing the Length of the Beds which are bounded by it.

Chevalier. I have ſeen ſome fine Kitchen-Gardens, where the large Pieces were edged with Lines of Box; but all the Borders in this Garden are compoſed of uſeful Plants.

Prior. There is ſome Oeconomy in this Method. The Growth of Box fills up a Space of Ground to little Purpoſe: It is likewiſe a voracious Plant, and requires much tending. Are not theſe Borders therefore garniſhed to more Advantage with Plants that are uſeful, and afford us proper Ingredients for Sallads, or at leaſt are valuable for their Scents, or ſome medicinal Quality they poſſeſs? Here you may ſee a long File of Terragon, and there a Range of Lavender is ſtretched out. One Alley may be bordered with Parſley, and another with ſweet Baſil or ſalutary Wormwood, or fragrant Marjoram. Sage and Savoury frequently riſe in one Line, and Pimpernel blooms in the ſame Bed with odorous Thyme. Borders are likewiſe formed of Strawberry Plants, and Violets may have the ſame Diſtribution, in order to accommodate us with a Syrup in their proper Seaſons.

Thoſe Alleys that are leaſt neceſſary are ſometimes ornamented with Turf, or a Verdure of Strawberry-Trees. A croſs Alley, that is but little frequented, may be embelliſhed by a Line of double Hollyhocks running through the middle; and in ſome other Walk of the like nature you may plant Poppies, and rear the Seeds of the Anemone, the Ranunculus, the Violet, and Stockgillyflower. Theſe unexpenſive Foreſts of Flowers will beautify a uſeleſs Plot of Land, at the ſame time that they are a Seminary for the Parterre.

The Ground that forms the Squares ſhould be diſtributed into Beds four Feet in Breadth, and ſeparated from each other by a Foot-wide Path. Such a Diſpoſition enables the Gardener to extend his Hand to the middle of each Bed, and to cultivate the whole Plantation without any difficulty.

Chevalier. At a little Diſtance from this Garden is a Spot of Ground, which the Gardener has appropriated to ſeveral Species of eſculent Plants; but the Beds are form'd in a manner that ſeem'd entirely new to me; they riſe very high on one ſide, and deſcend in an eaſy Slope on the other. What may be the Advantage of ſuch a Diſpoſition?

Prior. They are properly call'd Shelving Beds; and you may obſerve their Aſcent is to the North, and their Declivity to the South. I will now acquaint you with their Uſe. If the Land be too moiſt or cold, and eſpecially if it lyes open to bleak Winds, this Method of diſpoſing the Beds in a Slant is very commodious, but too much neglected at preſent. As this Figure is uniform through the whole Extent of the Beds, it is intirely inoffenſive to the Eye; and as the Water muſt unavoidably trickle into the Path, the Beds will conſequently be render'd more dry. The ſhelving Form of the Earth qualifies the Surface for receiving the Sun-beams almoſt in a perpendicular Direction, which ſtrengthens the Reflexion, and redoubles the Heat. A third Advantage, and which perhaps is ſuperior to the other two is, that the rapid Sweep of Hail and North-Eaſt Winds being conſiderably weaken'd by the back part of theſe elevated Beds, will be leſs prejudicial to the e Plants, which lye concealed from Inſult on the de-ending Side. Theſe ſlanting Beds are an Imitation of e vaſt Garden of Nature, where the Almighty Hand, that ſpenſes Vegetation and Growth to Plants, has ranged em on Hills and Declivities at due Intervals of Diſtance, at the ſolar Rays may be reflected with more Vigour on the green Productions, which without this benign id would ſeldom advance to Maturity in the temperate imes.

Water.

But as advantageous ſoever as the Diſ- oſition of your Garden in all its parts ay prove, it will be impoſſible for you fertilize the Whole, unleſs you have a commodious Sup- y of Water, that can always be diſtributed through every uarter of the Garden.

Spring-Water.

Chevalier. How delightful it is to be able, as in this ace, to diffuſe with one Turn of a Cock e Stream of a limpid Spring to the Side-oard, the Kitchen, the Baſon in the Par- rre, and the Ciſterns in the Olitory!

River-Water.

Well-Water.

Prior. Though this kind of Water, when it has ſettled d been warm'd by the Air, is render'd very fit to facili- ite the Progreſs of the Sap in Plants, I ſhould have as uch Eſteem at leaſt for River-Water, hich, as it conſtantly receives the vola- le Salts, and other Influences of the Air, uſt needs be very ſalutary to Plants. ell-Water is the worſt of all, becauſe its hilneſs is apt to prove fatal to the Roots; and a Garden- ſhould be very cautious of employing it, till he has firſt xpoſed it to the Air.

Chevalier. Do you approve the Uſe of Ciſterns?

Ciſterns.

Prior. Ciſtern-Water is only a Collection f Rain, and is extremely light. It may en be render'd a very wholeſom Drink, hen we are capable of preſerving it in its due Purity.

But whether there be a ſufficient Supply of other Water, r not, it is certainly a good Precaution to ſink a Ciſtern n thoſe Terraſſes, on which it is uſual to build fine rural eats for the Benefit of a ſalutary Air and an open Proſpect. large Ciſtern will collect in an Inſtant all the Water that as been ſhed upon your Building, and pour'd into your

Courts by a tranſient Storm; and it always accommodates you with a Reſervoir in caſe of Fire. It is likewiſe a certain Reſource, when a dry Seaſon has exhauſted the Wells and Springs, and it proves an admirable Fluid for watering of Plants. The Slime and nitrous Particles which are ſwept by the Water from the Roof and other Parts of the Habitation, ſink to the bottom of the Ciſtern, and form a Sediment, which the Gardener prefers to all kinds of Compoſt and Manures whatever, with reſpect to fortifying the Plants that thrive, or re-animating thoſe that droop.

The Choice of Trees.

Theſe Preparations qualify the Ground for the Reception of the young Plant, with which you propoſe to embelliſh it. But you muſt be very circumſpect in this Particular, leſt you ſhould happen to be deceived in the Purchaſe of your Trees, and be obliged to wait ſeven or eight Years for the Fruit of a Pear-Tree, which muſt afterward be rooted up.

Chevalier. Are there not ſome ſure Marks by which we may know the Species, before we ſee the Fruit?

Prior. There are ſeveral Species which reſemble each other ſo much in their Wood and Foliage, that they frequently deceive the moſt ſkilful Perſons. We can never be too diffident of the preſuming Ignorance of diſhoneſt Gardeners, as well as of the Miſtakes of thoſe who have the greateſt Probity, and likewiſe of the Abuſe that reigns in the Names of Fruit-Trees. What the *Pariſians* call the Queen *Claudia* is known by the Name of the Green Apricock at *Tours*; at *Roan* it is the Gay Green, and at *Vitri* * the Dauphin-Plumb. The ſame Diverſity prevails with reſpect to other Fruits, and they are frequently called by different Names in Gardens of the ſame Neighbourhood.

Chevalier. At this rate indeed we can never know what we buy; but is there no Remedy for ſuch an Inconvenience?

Prior. The beſt Courſe we can take will be to lay out our Money in thoſe Places that are moſt in Repute, and to lain ourſelves in ſuch a manner as may prevent all Equi-ation. We ſhould afterward be early in grafting, in a rſery, a great number of thoſe Species that are moſt proved. It is likewiſe a ſafe Expedient to depoſit ſome the fineſt Plants of the Nurſery, in Wicker Baſkets, in ler to be replaced in the room of thoſe whoſe Decay uld interrupt that agreeable Order and Succeſſion of uits which you may be deſirous of ſecuring.

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* A Village a League diſtant from *Paris*, and famous for the fineſt Nurſeries in *France*.

Chevalier. When we deſign to plant Eſpaliers and Dwarf ees, what particular Space ſhould be left between them? nere obſerve, that all the Trees are twice as diſtant from ch other, as they are in any other Place that I have en.

Prior. This Diſpoſition has been obſerved, becauſe the emperament of the Soil is excellent; had it been lean, d not very fertile, the Trees would have been planted arer to each other.

Chevalier. I ſhould think the contrary Practice would be oſt proper; for why ſhould we expect the Earth to be oſt fertile when it has leaſt Nouriſhment to impart?

Prior. I will firſt give you the Particulars of the preſent ethod, and then acquaint you with the Reaſons for pur-ing it.

A low Wall.

When we plant againſt a low Wall of out ſeven or eight Feet in Height, the rees are diſpoſed at a much greater Di-ance from each other than they are againſt a higher Wall, at ſo they may be expanded without any Confuſion, and afford them on each Side the Enjoyment of that Liberty hich is denied them at the Top.

A high Wall.

When the Wall is twelve or fifteen Feet igh, the Plantation may be ſet thicker, y placing a Dwarf-Tree between two ther Trees of a larger Growth, which will embelliſh the Vall, and render every part of it profitable.

But no Circumſtance is ſo proper to determine the juſt iſtance of the Trees, as the Temperament of the Soil. If he Wall be low, and the Ground very good, the Pear and each-Trees ſhould be planted at the Diſtance of nine Feet rom one another; and as the Apricock and Plumb-Trees hoot into a more luxuriant Growth, their Interval ſhould e twelve Feet. If the Soil be but indifferent, the Space between them ought to be leſs by three Feet; ſo that thoſe of the firſt Claſs ſhould grow within ſix Feet of each other and thoſe of the ſecond within nine. If the Wall be lofty, and the Soil excellent, the tall and ſhort Stocks are ſeparated by a Width of ſix Feet; but if the Ground be not extraordinary, they may be planted thicker, and four Feet will be a ſufficient Extent for the intermediate Space.

Chevalier. I am impatient to know the Reaſon of this Method.

Prior. It is this: The Fruits generally ſpring from little weak Branches, which die for the moſt part at the Expiration of a few Years. The ſtrong and vigorous Branches run all into Wood, and their Fruit is too ſmall to be valuable. If your Trees lengthen their Roots in an excellent Soil, and are only allowed a ſmall Space for the Expanſion of their Branches, you will be obliged to lop theſe, to prevent their encroaching upon the Boughs of the neighbouring Eſpaliers. This Contraction of their Growth will render them exceeding vigorous, but it will likewiſe cauſe them to run into Wood; whereas when they extend themſelves in their natural manner they ſhoot out a Profuſion of little Branches, proper for bearing Fruit. The Eſpaliers expand but little in a lean or indifferent Soil, and therefore they ought to be planted cloſer to each other.

We are not confined to ſo much Strictneſs in the Diſpoſition of Dwarfs, and the Diſtance between them may be very moderate in a rich Soil; becauſe they are not branched out on two Sides only, like the Eſpaliers, but ſwell into a round Circumference.

Chevalier. Do you approve of the Method of extending the Branches of Vines along the Tops of Walls, and above the Eſpaliers?

Prior. When theſe laſt are young, the Vine may very properly fill the Vacancy, in order to refreſh you with its Fruit, as well as with its Verdure.

Chevalier. I obſerve, when Perſons are preparing to plant, they always ſink very deep Trenches; and I ſhould be glad to know, Sir, what Rule they follow in that Particular?

Preparations for Planting.

Prior. The Gardeners, when they are to plant Eſpaliers, begin with opening a Trench ſix Feet wide, and three in depth, along ng the Extent of the Wall. But when they plant arfs, the Trench ſhould be eight Feet in breadth, with former depth, unleſs it be continued from one End of Garden to the other.

Chevalier. Do theſe Dwarfs require a larger Quantity of d Soil than the Eſpaliers? Or for what Reaſon are they wed eight Feet in the Breadth of their Trenches?

Prior. The Eſpalier, which is faſtened to the Wall, de-ts its Roots from it, and requires an Extent of ſix Feet, order to ſhoot them out on the other Side: But the arf, which is placed in the middle of the Trench, has more than four Feet of good Earth on either Side for Accommodation of its Roots; and were the Breadth of Trench leſs, the Roots would plunge too ſoon into a l Earth.

If the Earth which is dug out of the Trench happens to good, it ought to be inverted when it is thrown in; but t be only indifferent, the Trench ſhould be filled up h other Earth that has been prepared for ſome time.

Chevalier. One would wiſh to be certain of a good Soil Planting.

Prior. The next Circumſtance to be regulated is the pro-Treatment of the Roots and Branches of the intended ntation. Trees extend their Roots under the Earth, t by the Mediation of their Fibres they may imbibe the ater, which, together with the Salt, contains the Oil and er Principles of their Nouriſhment. They extend their nches at the ſame time into another Fluid, which is Air, that they may be impregnated, and chiefly by the trumentality of their Leaves, with the freſh Steams and atile Spirits that are conſtantly floating in it. The aves therefore render the ſame Offices to the Branches, the Roots receive from the Fibres. And hence it fol-vs, that if you tranſplant a Tree with the Earth that ad-res to its Roots, as is daily practiſed at preſent, you may ve all or part of its Foliage upon it. The Leaves are e of the beſt Expedients for recruiting the Tree with Humidity it loſt in the Day-time, by Tranſpiration; d poſſibly, for diffuſing to the Extremity of the Roots a armth, as well as a Stream of Air, whoſe Action and aſticity may give Motion to the Sap. It is evident by perience, that the Leaves which are left on the Tree contribute to the Invigoration of its Roots, and the Speedineſs of its Growth. But if the Roots have been uncover'd and diveſted of the Earth with which they were ſurrounded, the Tree is then too weak to nouriſh all the Branches after its Tranſplantation; and it would be of no Conſequence to leave it its Foliage, which will be all ſhed in a few Days. It will be neceſſary therefore to lop off the Head, or at leaſt to ſhorten all the Branches very conſiderably, that the Root, which at firſt is only employed in repairing its Loſſes, and whoſe Operations are then very languid, may have only Buds to nouriſh, inſtead of Branches; and may be in a Condition to tranſmit to them, by degrees, ſuch a Quantity of Juices as will protrude a Set of vigorous Sprouts.

Chevalier. But what would be the Conſequence, ſhould all the Branches be kept on the Tree we tranſplant?

Prior. The Sap, being too weak to produce capital Branches, would operate in thoſe of the ſmalleſt Dimenſions, and ſupply them with Fruit the enſuing Year. The Tree might deceive us by its plauſible Appearance; but as it would be unproductive of large Branches, which are its only Reſource, and the Baſis of the Fruit-Branches; it would be incapable of expanding into a Head, and muſt therefore ſhrink to a Minuteneſs, and remain extremely languid, till at laſt it will be neceſſary to root it up. The Practice of lopping off the Head of a Tree, when it is not immediately tranſplanted with its adhering Earth, is not to be conteſted.

The Roots have been formerly conſidered in the ſame manner; and Monſieur *de la Quintinie* is almoſt as ſevere to them, as he is to the Branches. It is with ſome Difficulty that he conſents to leave two or three of them on the Plant; and he limits their largeſt Extent to ten or twelve Inches. This Method of his is ſtill practiſed in many Places.

Chevalier. May we be allowed to deviate from it, ſince he paſſes for an Oracle in Gardening?

Prior. The World undoubtedly has great Obligations to him; but the *Virtuoſi* of the firſt Claſs, and particularly Meſſieurs *le Normand* *, Father and Son, who ſucceeded

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* Memoires de M. *le Normand*.

onſieur *de la Quintinie*, have diſcover'd by a Series of
periments, repeated with all imaginable Accuracy, that
a Tree be planted with all its ſound Roots, it will thrive
uch better, and will ſpeedily acquire a Vigour very dif-
ent from that of its Neighbour, which was planted
th a few Roots cut ſhort. And when the contrary has
any time happen'd, they have always diſcover'd an evi-
nt Cauſe of this Irregularity, which did not reſult from
y Circumſtance of more or leſs Roots.

Chevalier. We ſuſtain no Riſque, when we act upon the
edit of ſuch Authorities.

Prior. We may then conclude, that the ſafeſt Method of
anſplanting Trees is to preſerve all their ſound Roots;
d we may likewiſe ſuffer the fibrous Roots to remain,
hen they appear freſh and vigorous. When the Roots
gin to exert their Functions, they will certainly furniſh
ore Sap and Aliment, than could be ſupplied, were their
umber reduced to two or three. 'Tis Prudence therefore
ot to pay ſuch an implicit Regard to a Set of difficult and
commodious Rules, as to deſtroy thoſe Roots which are
good as any we can deſire, and to wait a length of
ime for others, while we already poſſeſs thoſe that are
fficient ‡.

When the Places for the ſeveral Trees have been mark-
d out and open'd, each Plant is laid near the Aperture
to which it is afterward to be inſerted.

Chevalier. Should not the Bottom of every Hollow be
over'd with ſome Compoſt?

Prior. All judicious Planters intirely diſapprove that
Method: For as the Salts of that Manure would be per-
etually deſcending below the Roots, they conſequently
uſt be uſeleſs to them. And as the Roots would be in-
olved in a corrupting Sediment, they would undoubtedly
e endanger'd by that Putrifaction. The Compoſt would
kewiſe prevent the Earth from binding about the Roots
o cloſely as it ought, and would form large Vacuities by
he Diſſipation of its own Subſtance; by which means the
brous Roots would languiſh, for want of a proper Soil to
aſten upon. But the Affair is different with reſpect to

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‡ Stultum eſt amittere radices quas habemus, ut acquiramus novas. *Theoph.*

Litter and other Manures that are diſpoſed round the Stem of the Tree, and above the Surface of the Earth; for then the Salts and Juices deſcend in a beneficial manner to the Roots of the young Plant; and the Compoſt ſo placed is often render'd a neceſſary Covering to ſecure the tender Tree from the immoderate Penetration of Froſt, and the Breath of ſcorching Winds, which would be fatal to it in the very firſt Heats.

Chevalier. It were to be wiſhed this Compoſt had a more agreeable Appearance in a Garden.

Prior. It is uſually cover'd over with a thin Surface of Earth, which conceals its Deformities.

Chevalier. What Seaſon is ſet apart for Planting?

The Seaſon for Planting.

Prior. Every one declines it, when the Earth is impregnated with too much Rain, becauſe it is then apt to conſolidate about the Roots, which renders them incapable of ſhooting their Fibres into ſo impliant a Maſs. The uſual Seaſon for Planting continues from the Beginning of *November* to the Middle of *March*. In lean Soils the Month of *November* is thought proper for planting, that the Trees may continue to ſhoot their Fibres, and gain ſome Advance during the Remainder of *Autumn*. But in ſtrong Soils, where an immoderate Humidity would be injurious to the young Tree in the depth of Winter, Planting is deferr'd to the Month of *February*, or even to *March*. One of theſe two Seaſons is likewiſe choſen for tranſplanting unfruitful Trees, and they have frequently been render'd fertile by a mere Change of Situation; which is a Circumſtance that favours a Surmiſe I always entertain'd, that the Diminution of the Quantity, and the impetuous Flow of the Sap, accommodates its Operations more effectually to the ſmalleſt Branches, where the Fruit-Buds are lodged.

The moſt eſſential Circumſtance in tranſplanting, and eſpecially great Trees, is to render the Earth very compact, and to form it round the Roots with the Hand thro' their whole Extent. The Water which is poured upon it, when the Gardeners plant in the Spring-Seaſon, dilutes the Soil, and cauſes it to deſcend and enfold the Roots; but when they plant in Autumn, they are diſcharged from the Labour of Watering, by the Winter-Seaſon, which will always be ſufficiently liberal in that Particular.

THE
APPENDAGES
TO AN
OLITORY.

DIALOGUE VII.

The COUNT. *The* CHEVALIER.

Count. THESE, my dear Chevalier, are the Memoirs the Prior has ſent us for our Entertainment, while he is obliged to be abſent for a few Days.

Chevalier. I ſee they relate to grafting and pruning of rees; and as this is a Work already completed to my ands, I ſhall add it to the Papers that contain my former emarks.

Count. We will have the Pleaſure of reading it together: ut before we proceed to the Cultivation of Trees and ſculent Plants, I would acquaint you with ſome Appendaes that are neceſſary to an Olitory, to aid it in its Funcons, and to preſerve its Productions. Have the Fruit. arden, the Orchard, the Nurſery, and the ſeveral ſorts Green-Houſes been deſcribed to you?

Cheva-

Chevalier. I only know them by Name.

The Fruit-Garden.

Count. Let us begin with the Fruit-Garden. It frequently happens, that the Walls of the Olitory are far from being ſufficient for all the favourable Expoſures that may be neceſſary. Thoſe Fruits which are ripen'd with Difficulty are not the only Productions that need the Eſpalier: The Peach, without that Aſſiſtance, would neither be ſhaped nor colour'd as we could wiſh. The moſt excellent Species of Pears, as the Beurre, the Burgamot-Craſane, the Saint-Germain, the Virgoleuſe, and ſeveral others, are too large to be fully expoſed to the Wind, becauſe they will fall with the leaſt Shock. Early Cherries, White Primordian, and Violet Perdrigon-Plumbs, will only thrive on Eſpaliers.

In order to ſecure a Quantity and Succeſſion of thoſe Fruits we are deſirous to obtain, it will be proper to reſerve a Piece of Ground, like this before us, on one ſide of the Olitory, and where the Appearance of Regularity is altogether unneceſſary. It ſhould be choſen with an Aſpect to the *Eaſt* or the *South*, and ſinking, if poſſible, into a gentle Declivity. Several little Walls muſt be raiſed ſeven or eight Feet in Height, and which, in Conjunction with the general Encloſure, will form Poſitions of all kinds. They ought likewiſe to be ſo near each other, as to concenter a glowing Heat, and at the ſame time to be diſpoſed at ſuch a mutual Diſtance as will prevent them from ſhading each other. The additional Conveniences of ſhelving Roofs, and Coverings of Straw, will eaſily preſerve the Fruits from chilling Froſts and Storms of Hail; and we may be certain of gathering all ſorts of Fruits, of a moſt engaging Beauty, and even in thoſe Years when a Dearth reigns in every other Part.

The Orchard.

The Orchard is the ſecond Appendage to an Olitory; and we may take a Walk in this, if you are ſo diſpoſed, Sir.

Chevalier. As ruſtic as it appears, I think it exceedingly agreeable; but if the Fruit-Garden be ſuch a ſure Revenue, what ſhould prevent it from being enlarged, ſince it would certainly be preferable to an Orchard?

Count. The Orchard is appropriated to thoſe large Trees which we can't conveniently be without; and the Genera-

lity

y of Fruits appear more amiable, and are enriched with ner Flavours, when they grow naturally in the open Air, nd on Trees of lofty Stems; whether a free Circulation of ir be moſt advantageous to them, or that the Sap of a ree which has never been pruned, by being diſtributed to a greater Number of Branches of all Dimenſions, aids eir Fertility, and produces a Growth of more delicate ruit. But as the lofty Trees, which we have ſo much aſon to multiply, are commonly productive of bad Ef- cts in an Olitory, where their Shade may be injurious to e Herbage and Eſpaliers, they are conſigned to the Or- ard, where we generally plant thoſe Pears that are much ſteemed for their melting Pulp, and would be apt to grow ealy and inſipid on an Eſpalier, for want of a free Cur- nt of Air. Such, for Inſtance, are the Dean's Pear, the eſy de la Motte, and the Green Sugar-Pear.

We likewiſe conſign to the Orchard all thoſe Pears, hoſe immoderate Size preſerves them from being injured y bluſtering Winds; and Pear-Trees ſucceed better in that tuation, than when they are contracted into Dwarfs, or iſpoſed along the Eſpalier. The *Neapolitan* Medlar, the ilberd, and ſome Mulberry-Trees, have alſo their Places ſigned them in the Orchard, to furniſh us with Variety n each Seaſon.

Chevalier. I wiſh your Lordſhip would inform me, why e Arrangement of the Trees is interrupted toward the nd of the Orchard, where I obſerve a Multitude of Plants owded thick together?

The Nurſery.

Count. You are looking upon the Nur- ery, whoſe Function is to recruit the Or- hard, the Fruit-Garden, and the Olitory. Ve there raiſe a numerous Progeny of young Plants, which e reſerved to ſupply whatever we are obliged to root up any other part. Some of theſe Plants are propagated om the Kernels, or Stones of Fruits; and though, when ey are advanced in their Growths, their Productions may e excellent, they will yet be ſomething wild in their Na- ure; and we ſhall find it neceſſary to reform them by the raft. Others have been raiſed from Shoots, or Slips, cut rom wild Stocks in the Woods, and whoſe Fruits have a arſh Flavour. A third ſort are the wild Stocks themſelves, mproved by Grafting, in the manner you will find deſcribed in your Memoirs. The Generality of theſe laſt are earthed in Baſkets; but do you know for what Reaſon, Sir?

Chevalier. I think I recollect it, my Lord. It is in order to have a Tree ready formed, and in a Condition to be tranſplanted into the Place of one that is decayed; by which Means the Vacancy may be filled without any Delay, and we are in no Danger of being deceived. But I ſhould be glad to know whether the Choice of a Tract of Ground for the Nurſery requires any peculiar Attention?

Count. If the Soil ſhould happen to be lean and unſubſtantial, its Productions will be weak and languiſhing, and their Indiſpoſition can never be remedied, On the other Hand, it ought not to be extremely rich, or manured to any conſiderable Degree; and its Quality ſhould be a Medium between thoſe Extremes. It ought to be inferior in ſome Degrees to the Soil, into which the young Trees are afterward to be tranſplanted, that the Tranſition from one to the other, which is apt to impair them, may be ſpeedily retrieved by the Goodneſs of a new Aliment, and that they may not degenerate by paſſing from a good Soil, to one that is leſs ſo.

While the young Plants are in the Nurſery, they are confined to a contracted Space, and muſt be governed by very ſtrict Rules. They are diſpoſed in Lines three Feet diſtant from each other; but the youngeſt are planted ſtill cloſer, that we may be as ſparing of the Ground as poſſible, and likewiſe that we may invigorate their Stems, by not permitting their Foliage to expand in full Liberty. When they are habituated by the Conſtraint of this firſt Culture, to the Form we propoſed to give them, they are allowed a more honourable Rank, among Trees of an advanced Growth; and inſtead of languiſhing when they leave their ſoft Situation, they are ſeen to improve immediately after their Tranſplantation from the Nurſery, and then experience the Advantage of a free Air and a good Eſtabliſhment.

I believe it will now be proper for us to turn back toward the Houſe.

Chevalier. Your Lordſhip makes our Walk a little of the ſhorteſt to Day.

Count. I have no Intention to leave you as yet, Sir, but am willing to let you ſee the different Repoſitories that are neceſſary

The Fruitery.

ecceſſary to preſerve the Productions of the O-tory. The firſt that occurs to us on this Ocaſion, is the Fruitery. Several Expedients ave been reſorted to for the Preſervation of Fruits as long s poſſible; and I believe there are Secrets for the Accomliſhment of that Deſign: But till ſome Perſon ſhall pleaſe o favour us with the Diſcovery, if they indeed be real we uſt content ourſelves with the Fruitery, as the beſt Conivance we have at preſent, for the Preſervation of our ruits through all the Months of the Winter-Seaſon, in hich they were intended to regale us. You are ſenſible hat they ripen ſucceſſively in the Place where we ſtore them.

Chevalier. By what Means can a Fruit, which no longer rows on the Tree, acquire any better Qualities than what received from the Soil and Sun-ſhine?

Count. It does not acquire any Thing new, and the Maturity it obtains in the Store-room is only a Modification of what it already enjoys. I fancy I can account for the Cauſe. The Fruit continues to be impregnated with ſeveral Particles of Air, which operate by their elaſtic Power, and heir Efficacy is very conſiderable, when they are either ompreſſed or expanded in Proportion to their being affected by the Impreſſions of the external Air; but their Efforts re very languid, when they ceaſe to communicate with the Atmoſphere without. The Air which is incloſed in the Fruit, muſt neceſſarily act upon the Sap, whoſe Coheſion it breaks by Degrees, and occaſions a perfect Intermixture of the Salts and Oils, after which it ſmooths off the jagged Points of the one, by the ſoft Occurſions of the other, and produces in Time a Flavour which is neither poignant nor inſipid, but an agreeable Combination of Sweetneſs and Acidity, which conſtitutes the Perfection of the Fruit. When this Period is once paſt, the palatable Parts of the Fruit are diſſipated by inſenſible Evaporation; and what remains is only a groſs Subſtance fit for nothing but to be thrown away. In order therefore that Nature's Care, to enrich the Winter with different Degrees and Succeſſions of Ripeneſs in the Fruits ſhe reſerves for that Seaſon, may not be rendered ineffectual we find it neceſſary to prepare a Repoſitory, to ſecure them from the Impreſſions of the external Air, which as we are ſenſible by Experience, is too precipitate in completing their Maturity, and cauſes them too ſuddenly to exhale the fine Particles that ſupplied them with their delicate Flavour.

Chevalier. The Fruitery then muſt needs be ſhut up as cloſe as an Ice-Houſe.

Count. It ought to be furniſhed with ſubſtantial Walls to render it uſeful; and it ſhould neither be in a Granary, where the Air is abundantly too cold, nor in a Cellar where it is as much too moiſt; but it ought to be in a dry Place, where the Floor ſhould be even with the Ground, and the Windows turned to the *South*: There ſhould likewiſe be good Shutters and double Doors, beſide which, a double Fold of Curtains ſhould be drawn round the Room; otherwiſe the Humidity will rot one Part of the Fruit, and the Froſt decay the other. I have cauſed mine to be furniſhed with large wooden Preſſes for the better Security of the Fruit, and they have ſucceeded perfectly well. The uſual Cuſtom is to have Shelves bordered with a Ledge, to prevent the Fruit from falling. Theſe Shelves are likewiſe diſpoſed in a Slant, which from Time to Time gives a View of all the decayed Fruit, which ought to be thrown away for the Preſervation of the reſt. A Shelf without a Covering is prejudicial to the Fruits, which then are apt to roll againſt each other, and putrify by contact. They are likewiſe for the moſt Part heavy enough to be injured in the Part where they preſs upon the Wood; and on the other Hand, the Straw and Fern which are uſually ſpread under them, frequently infect them with a diſagreeable Flavour. Sand eaſily impairs them by the Humidity it contracts in the Shade; and nothing has been found ſo ſerviceable, as Moſs gathered from the Stems of Trees and well beaten, after it has been dried in the Sun. The Fruits ſink gently into a Bed of this Nature, which ſuſtains them with a commodious Softneſs; and we may then viſit and touch them, without any Danger of rolling them upon any other Fruits that are near them.

Chevalier. We preſerve in our Houſe for a conſiderable Time, and even till the Winter be very far advanced, all Sorts of fine Pears by wrapping them up in Sheets of thick Paper twiſted over the Stalks. The Fruit is then ranged on Hurdles, in order to preſerve it from Air and Moiſture.

Count. This is certainly a very good Expedient, and it eſerved me a Parcel of Virgoleuſe Pears about a Month go.

Chevalier. Will your Lordſhip be ſo good as to let me now the Uſe of thoſe Bags that are hung up in the Middle f the Fruitery.

Count. They are different Parcels of Seeds which will be ſed in the remaining Part of the Spring, and likewiſe in the ummer Seaſon. The Name of the Seed is inſcribed on ach Pacquet, and the whole may be recurred to without ny Confuſion.

The Repoſitory for Herbs, *&c.*

A ſecond Repoſitory, and altogether as uſeul as the other, is that where we preſerve our Roots and eſculent Plants. This is uſually a aulted Cellar, the Avenues and Spiracles of hich are exactly cloſed up, during the Seaſons of Froſt nd Humidity. The Winter Herbs and Roots are preſerv'd n Beds of Sand, which cauſe Celery and Endive to whiten nd enlarge their Growth. We may even raiſe a Vegetatin of Muſhrooms on thoſe Beds, which, being intermixed with Manures that have been expoſed to the Air, generally ontain ſeveral of the imperceptible Seeds of Muſhrooms, which have been wafted by the Wind into a Variety of ituations.

Chevalier. This may be properly called a Winter-Garden.

Count. We there can imitate the Favours of the Spring, nd we likewiſe prolong thoſe of Autumn as much as poſſible.

The Green-houſe.

A third Repoſitory is the Green-Houſe, where, during the Winter-Seaſon, we lodge our Orange, Pomegranate and Fig-Trees, together with Laurels, and all the uſual fruitful or flowering Shrubs that abhor the Cold. Theſe Plants correſpond very well with the Air of our Climate; and it is ſufficient if the Green-Houſe be well cloſed and turned to the South, in order to receive the Warmth of the Sun thro' the glazed Windows, and even to admit the Air from Time to Time when its Gales are ſoft and favourable.

Chevalier. Would not a Chimney be commodious in the Green Houſe, when the Winter happens to prove ſevere?

Count. Neither that nor a Stove would be proper. The coldeſt Air would deſcend through the Vents of the Chimney and freeze ſome Plants, while others near the Fire would be ſcorched. The Sparks might even ſet Fire to the Boxes of Plants, and the Mats that are hung upon the Walls to preſerve them from Humidity. The Smoke which would almoſt be inevitable, is extremely injurious to all Verdure, and frequently to the Plant it ſelf. In a Word, there is no Equality in this Method, for ſhould the Fire decay or be extinguiſhed, the Plants which have then opened all their Pores to a Warmth that refreſhed them, will be more obnoxious to the Severity of Froſts, than they would had they been left without any Fire at all. The ſureſt Expedient therefore, is to keep the whole Place well cloſed up from the external Air, and to cover the Windows with double Lays of Straw when the Cold is very violent *.

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* The Tranſlator thought it neceſſary to acquaint the Reader with the Sentiments of the ingenious Mr. *Miller,* with relation to Green-Houſes; and the following Paſſage which is tranſcribed from his Gardener's Dictionary will not be unacceptable to the candid and judicious, tho' it happens to differ in ſome Particulars from our excellent *French* Author.

Under the Floor, [*of the Green-Houſe*] about two Feet from the Front, I would adviſe a Flue of about ten Inches in width, and two Feet deep to be carried the whole Length of the Houſe, and it may be returned along the back Part, and be carried up in proper Funnels adjoining to the Tool-Houſe, by which the Smoke may paſs off. The Fire-place may be contrived at one End of the Houſe; and the Door at which the Fuel is put in, as alſo the Aſh-grate, may be contrived to open into the Tool-Houſe, that ſo it may be quite hid from the Sight and be in the dry; and the Fuel may be laid in the ſame Place, whereby it will be always ready for Uſe.

I ſuppoſe many People will be ſurpriſed to ſee me direct the making of Flues under a *Green-Houſe* which have been diſuſed ſo long, and by moſt People thought of ill Conſequence; as indeed they have often proved, when under the Direction of unſkilful Managers, who have thought it neceſſary whenever the Weather was cold, to make Fires therein. But however injurious Flues have been under ſuch Miſmanagement, yet when ſkilfully managed, they are of very great Service: For tho' perhaps it may happen that there will be no Neceſſity to make any Fires in them for two or three Years together, as when the Winters prove mild there will not, yet in very hard Winters they will be extremely uſeful to keep out the Froſt, which cannot be effected any other way, but with great Trouble and Difficulty.

Withinſide of the Windows in Front of the *Green-Houſe*, you ſhould have good ſtrong Shutters, which ſhould be made with Hinges to fold back, that ſo they may fall quite cloſe to the Piers, that the Rays of the Sun may not be obſtructed thereby: Theſe Shutters need not to be above an Inch thick or little more, which, if made to join cloſe, will be ſufficient

Chevalier. I have ſeen a Stove uſed in a Green-Houſe at
rſailles.

Count. That, Sir, is a fourth Species of Conſervatories,
d only fit for thoſe Perſons who are extremely rich and
rious, or for Gardeners, who can make the Profits of it a
ompenſation for the Expence.

An equal Degree of Heat is preſerved in it for ſix or ſeven
onths, by the Aid of Stoves placed in the Middle, and at
e Extremities of the Building. This Green-Houſe ſhould
tirely front the South, and if it be formed into a Semi-
rcle, it will concenter the Heat of the Sun from Morn to
vening, better than if it were diſpoſed in a ſtrait Line.

The Walls ſhould be thick to prevent the Penetration of
old, and it will be neceſſary to have them white-waſhed
thin, the better to reflect the Light that colours and en-
ens the Plants. The Structure is but of a moderate
eight, that the Body of Air to be heated may not be too
nſiderable; and its Depth is narrow, that the Sun-beams
ay play upon the back Wall.

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fficient to keep out our common Froſt; and when the Weather is ſo
d as to endanger freezing in the Houſe, it is but making a Fire in
ur Flue, which will effectually prevent it: And without this Conve-
ency it will be very troubleſome, as I have often ſeen, where Perſons
ve been obliged to nail Mats before the Windows, or to ſtuff the hol-
w Space between the Shutters and the Glaſs with Straw; which,
hen done, is commonly ſuffered to remain till the Froſt goes away;
hich if it ſhould continue very long, the keeping the *Green-Houſe* ſo
oſely ſhut up will prove very injurious to the Plants. And as it fre-
ently happens that we have an Hour or two of the Sunſhine in the
iddle of the Day in continued Froſts, which are of great Service to
ants, when they can enjoy the Rays thereof through the Glaſſes, ſo
hen there is nothing more to do than to open the Shutters, which may
performed in a very ſhort Time, and ſoon ſhut again when the Sun is
ouded, the Plants may have the Benefit thereof whenever it appears;
hereas, where there is ſo much Trouble to uncover, and as much to
ver again, it would take up the whole Time in uncovering and ſhutting
em up, and thereby the Advantage of the Sun's Influence would be
ſt. Beſides, where there is ſo much Trouble required to keep out the
roſt, it will be a great Chance if it be not neglected by the Gardener;
r if he be not as fond of preſerving his Plants, and as much in Love
ith them as his Maſter, this Labour will be thought too great by him;
d if he does take the Pains to cover the Glaſſes up with Mats, &c. he
ill not care to take them away again until the Weather alters, ſo that
e Plants will be ſhut up cloſe during the whole Continuance of the
roſt. *Miller*'s Gardener's Dictionary. Article, *Green-Houſe.*

All the Southern Front ought to be a Range of Windows, accompanied with ſtrong Curtains, and with as few Piers as poſſible, that the whole may be equally cloſed and equally preſented to the Sun, without any Interruption of Shade.

The Funnels of the Stove are carried along the inſide Length of the Walls, but the Stoves are ſupplied with Fuel from without, and are built in the Subſtance of the Maſonry, ſo that neither Fire, Sparkles or Smoke, can have any Admiſſion within.

In order to warm the internal Air in a ſure and regular Manner, it will be proper to erect over the Stove a little Chamber or Kind of Furnace, which would be filled with Flints, and ought to communicate with the outward Air by the Intervention of a Tube, and with the interior Air of the Green-Houſe by another Canal. The Stream of external Air, which is admitted into the Furnace, becomes hot by its Continuance there, and likewiſe by its flowing over the the burning Flints, after which it is diſtributed through the Conſervatory in ſuch Quantities as are judged proper by turning a Cock. The Influx of Air is adjuſted by the Thermometer; in Conſequence of which, any Exceſs of Heat is corrected by the Admiſſion of as much cool Air as is thought neceſſary; by which Means the whole Place may enjoy ſuch a temperament of Air as correſponds in a great Meaſure with the genial Warmth of the fine Days in Summer.

At a little Diſtance from this Place I have contrived a Green-Houſe in Miniature; and inſtead of a ſolid Building with a pompous Saſh-work in Iron Frames, I contented myſelf with beſtowing Maſonry on the Northern Part, while the three other Sides and the Roof are compoſed of ſtrong Wooden Frames painted in Oil.

You may there ſee the Stove which is ſupplied with Fuel from without; but inſtead of having recourſe to this, or to any Work of Maſonry, we may form a Lodge of Glaſs Saſhes over a Bed of Earth. The whole may be covered with Mats when neceſſary, and at other Seaſons it may enjoy the Sunſhine through the Glaſs, which will confine the Warmth to it for a conſiderable Time.

Chevalier. I am ſurpriſed beyond Expreſſion, for I diſcover through the Saſhes ſeveral Cluſters of Grapes already formed, though the Vine be not yet in its Bloom.

Count. Let us walk into this Conſervatory, and take a iew of its Curioſities. The firſt uſe of this Place is to prerve thoſe exotic Plants that are incapable of ſuſtaining the everity of our Air, in a common Green-Houſe. You may bſerve ſome Plants of this nature which I have collected ith care. I have the *Torch-Thiſtle*, the *Euphorbium*, the *offee-Tree*, the *Fig-Marygold* *, the *Aloe*, the *Pine-Apple*, nd ſome *Balm-Trees*.

The ſecond Function of the Green-Houſe with a Stove is o furniſh us with Novelties, ſuch as beautiful Flowers and pe Fruit, much ſooner than their common Seaſon. For inance, we extend into the Green-Houſe two or three of e fineſt Branches of a Vine, whoſe Stock is planted withut; and when the exterior part of the Vine begins to loom at the cloſe of *May*, or in *June*, the green Grapes, hich you obſerve within, will be black, and ripe enough r eating. This Expedient enabled me to entertain you to ay at dinner, with a Plate of Figs that received your Aprobation.

Chevalier. And yet it will be two or three Months bere we ſhall gather them in their natural Seaſon, for they re never ripe till *July*.

Count. When the Froſt begins to check the ſecond Growth of Figs, in *September*, I intend to ſhelter the Tree n the Conſervatory, and we may poſſibly prolong the Enoyment of this Fruit to the End of Autumn.

The Fruits that are here produced are frequently aided y the Aſpect of the Sun, and the Influence of the Air; nd they regale us with a very agreeable Flavour. The Flowers likewiſe that ſpring in the ſame Situation refreſh he View with Colours of a lively Glow. The Induſtry, y which we are accommodated with theſe Novelties, has een tranſmitted to the Gardeners by the Curious. It is o longer an unfertil Amuſement, but redounds to the Advantage of the Publick.

Chevalier. Does not your Lordſhip take this Method of Culture to be a Force upon Nature?

Count. No, Sir, it rather aids her in her Operations. When our Plants are ſcorched by immoderate Heat, we refreſh them with frequent Waterings; and Nature ſuffers no Compulſion by this Proceeding. On the other hand, when they are chill'd by Froſt, we recall them to Life by a redoubled Warmth, transfuſed through Glaſs Bells and Saſhes; and Nature is no more forced by this Method than ſhe is by the other.

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* Ficoides.

Chevalier. I obſerve another little piece of Building, join'd to the ſide of the Green-houſe.

Count. The Gardener there depoſites all his Tools and Implements, as well as the Springes, Traps, Scare-Crows, and other Inſtruments of Hoſtility, which he employs againſt the Enemies of his Labours.

Chevalier. Will your Lordſhip permit me to deſtroy the Worms, and Snails, and Caterpillars, with all the other Inſects that infeſt the Garden?

Count. That will be undertaking a very conſiderable Affair, Sir.

Chevalier. I ſhall acquit myſelf in a punctual manner; for nothing more is neceſſary, than to leave the Garden to the Care of a few Lapwings, or Plovers, after the large Feathers have been pluck'd from their Wings; your Lordſhip will ſee them employ'd, from Morning to Night, in keeping the Gardens as neat as poſſible.

Count. Your Obſervation is juſt, Sir: I had ſome of thoſe Creatures for ſeveral Years paſt, and they really performed Wonders; but I have been deprived of theſe Servants by Birds of Prey.

Chevalier. I know a Gentleman, who takes even a better Method than this. He has a Breed of Domeſtic Storks, that were ſent to him from *Germany*, and they are diſpoſed in a Neſt which is fixed in the middle of a Veſſel, formed with two Iron Hoops and placed on a Pedeſtal, faſten'd to the top of the Turret were the Weather-Cock turns. The Storks are attentive to all that paſſes below, and as their Sight is very penetrating, they diſcover the Motions of a Dormouſe, the Labours of a Mole, the gliding of a Snake, and the Trip of a Lizard; upon which they immediately dart upon them, and they always train up their Young to the ſame Hoſtilities.

Count. Theſe Birds will take off abundance of trouble from the Perſon who entertains them.

Thus have I acquainted you, my dear Chevalier, with the firſt general Principles that will enable you to form a Garden in a proper manner: let us now proceed to the Method od of ſhaping a Tree; and if you pleaſe we will ſeat ourlves in this place, while you read over the Memoirs you ave received from the Prior.

Chevalier. I will begin with the firſt that occurs.

Obſervations on GRAFTING.

OF all the Operations in Gardening, there are none but what are honourable in their Nature and amuſing to he Imagination; but thoſe that are moſt worthy of our Cuioſity are Grafting and Pruning. The former is the eaſier f the two, but we muſt likewiſe allow it to be the moſt atoniſhing. Pruning is indeed more difficult, but it certainy conſtitutes the real Merit of a Gardener.

Grafting is performed in ſeven or eight different manners, juſt Idea of which will be ſufficient at firſt; and we may eſerve for the practic Part a particular Detail of each Precaution, neceſſary to be obſerved in that Branch of this Science.

Cleft-Grafting.

The moſt antient manner of grafting is performed firſt, by lopping off all the Head of a Tree, or only one of the main Branches; ſecondly, by cleaving the Stock with a ſtrong Knife, which ought to be driven in with a Mallet; thirdly, by opening the Cleft to ſome depth, by means of a Wedge; and laſtly, by inſerting into the Stock a Branch cut from a Tree of a kindly nature, and impregnated with at leaſt three good Buds, which are ſo many Knots or Tumours; each of which enfolds a little Pacquet of Leaves. The Extremity of the Graft ſhould be cut ſmooth and even on both ſides; after which it ought to be placed in the Cleft in ſuch a manner, that the Bark of one of its ſides, at leaſt, may exactly concide with the Bark of the Stock that receives it.

This * Diſpoſition is abſolutely neceſſary, because the Incorporation of the Graft with the Stock is accompliſhed by the mutual Union of their fine Barks. This Bark is compoſed of ſeveral thin Rinds, or Films, drawn in Circles over each other; and the firſt Round is diſengaged from the reſt in Spring; at which time it ſwells into a more ſubſtantial Texture, and forms the new Circle of Wood which is an-

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* Philoſophical Tranſactions, abridg'd by *Lowthorp*. Vol. II. p. 675.

nually

ually acquired by the Tree. The Fibres that conſtitute the inward Rind of the fine Bark being cut in thoſe Parts where the Stock and Scion are joined, the Orifices of the one open into thoſe of the other; in conſequence whereof, the callous Subſtance, which is there formed, unites ſeveral Canals of the Trunk with thoſe of the Graft. Other Canals are interwoven with each other, and the two Films ſo different in their Natures are conſolidated into one Subſtance. But when this Conjunction is not accompliſhed, under the fine Texture of Rind, it muſt never be expected, either in the Wood already formed, and which then ceaſes to be ſupple, or in the groſs Bark which is altogether as impliant as the Wood.

When the Inſertion is completed, the Cleft ſhould be covered with Chips of Bark, in ſuch a manner as to exclude all Penetrations from without. This Covering of Bark ſhould be coated over with a Compoſition of Wax and Pitch melted together, or a Mixture of Clay, with a ſmall quantity of Straw; and the whole muſt be ſwathed over with Cloth, to prevent the Admiſſion of Rains, and parching Air. This is what we call grafting in a Cleft.

Croſs-Grafting.

The firſt Cleft may be croſſed or traverſed by a ſecond, in order to inſert four Scions inſtead of one; but care muſt always be taken to unite the Bark of the Scion with that of the Stock. This is called Croſs-Grafting, but the Operation is the ſame with the other.

Crown-Grafting

If the Trunk be too thick ſo as to create juſt Apprehenſions of its being too much ſhocked by opening a Cleft, the ſurrounding Bark muſt then be ſeparated from the Wood, in ſeveral Parts, by the Inſertion of a ſmall Wedge; after which we may ſink into the open'd Circumference eight or ten Grafts, each of which ſhould have four or five good Buds and their Extremities are to be ſhaped and flatted in ſuch a manner as will beſt adapt them to their ſeveral Apertures. The whole muſt be cover'd over like the Graft in Cleft; and this is what we call Crown-Grafting. *

Sometimes, inſtead of inſerting the Scions into a Cleft, or between the Wood and Bark of large Stocks, an Inciſi-

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* It is likewiſe called Shoulder Grafting, and Grafting in the Rind. The Appellation of Crown-Grafting is given it, becauſe the Grafts are ſet in form of a Circle or Crown.

Whip-Grafting.

on of ſome depth is made with a Joiner's Chiſſel in the Bark, and likewiſe in the Wood ; and when the piece is taken out, the end of the Graft muſt be exactly adjuſted to the Cavity, by which means the two Barks acquire an intimate Conjunction ; and this is called *Whip-Grafting.* Theſe three Operations, the firſt of which is moſt in uſe, are performed in the Months of *March* and *April,* when the Sap begins to riſe in a copious Flow.

Flute-Grafting.

Two Branches are ſometimes choſen in the Month of *May,* one growing on a wild Stock, and the other on a Tree of a kindly nature, and they ſhould both be exactly of the ſame Thickneſs. Each of them is left on its proper Stem, and it will be neceſſary to ſhorten both: After which, the Gardener makes a circular Inciſion in the good Branch, and pares off a little Tube or Ring of Bark, which will be of a ſufficient Length, if it contains two good Buds. The wild Branch muſt be diveſted of its Bark, and while the Wood continues moiſt, it muſt be inſerted into the hollow Tube which encloſes it like its native Bark. The Extremity of this Inſertion may be covered with tempered Clay, or thin Chips rolled into a circular Bandage upon the edge of the Bark. This Operation is called *Flute-Grafting,* becauſe it reſembles the uſual Practice of Children, who, in the Seaſon when he Sap riſes, ſtrip the Bark from a Branch, in order to orm it into a Flute; and it is appropriated in a more paricular manner to Cheſnut and Fig-Trees.

Eſcutcheon-Grafting, or Inoculation.

The fifth Manner of grafting is more generally practiſed upon Stone-Fruits, and his Operation is performed by cutting from a good Tree a ſmall triangular Piece of the Bark, whoſe Length muſt a little exceed its Breadth, and in the middle of which, the firſt Appearance of a Branch with the Traces of one or two Buds ſhould be ſeen. In paring off this Bark it is uſual to ſlide the Blade of the Pruning-Knife under it, in order to cut the little Knot if that it ſhould be neceſſary, together with a ſmall Quantity of the Wood: not that this laſt can be for any Advantage in cauſing the Graft to take, but this Precaution is uſed to prevent any Hazard of miſſing the Knot, and we may be certain it is ſecure when it adheres to the Bark : but if it ſhould be ſeparated from it, no Bud will be found. This Knot is the whole future Tree in little.

The Perſon employed in this Operation holds the triangular Bark in his Mouth by the Extremity of the little Branch, to prevent the Saliva from being detrimental to the Sap; and at the ſame Inſtant makes an Inciſion in the form of a T, in ſome ſmooth Part of the Wild Stock or Tree that is to be meliorated; After which he raiſes and removes the Lips of the upper Aperture with the flat end of the Handle of his Pruning-Knife, and then ſlips in the triangular Bark, cauſing its longeſt Point to deſcend, till it arrives at the bottom of the T, and is covered on every part except the Bud, which is ſuffered to project outward. Some Gardeners have made ſucceſsful Attempts to inoculate in another manner. They apply the Triangular Bark of a kindly Nature to the Bark of a Wild Stock, and cut in this latter another Triangle of the very ſame Dimenſions with the other; after which they raiſe it up, and remove it from its Place and then inſert the other Bark, which contains the Eye or Branch of the better Species.

The Barks are gently treated, and qualified for uniting with each other, by binding them with ſeveral Rounds of Woolſted and then the whole is completed. Woolſted is preferable to hempen Thread which is too inflexible, and prevents the Bark from dilating with due Freedom. This is called Eſcutcheon-Grafting, becauſe the pointed triangular Bark very much reſembles the Shield of our antient Knights; and in order to ſucceed more effectually, inſtead of a ſingle Eſcutcheon it is uſual to inſert one on each of the two oppoſite ſides of the Tree.

Permit me, my Lord, to diſcontinue my Reading, while I inform myſelf from your Lordſhip whether this Obſervation agrees with *Virgil*. I find by the *Prior*'s Account, that a ſmooth part of the Bark ſhould be choſen for the inſertion of the Shield-Graft; whereas *Virgil* declares in his *Georgics*, which I have lately read, that the Surface of the Bark ſhould project in ſeveral Knots, and that the Aperture ought to be formed in the middle of one of theſe *.

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* —— qua ſe medio trudant de cortice gemmæ,
Et tenues rumpunt Tunicas, anguſtus in ipſo
Fit nodo ſinus: huc aliena ex arbore germen
Includunt, udoque docent inoleſcere libro. *Georg.* 2.

Amidſt the Bark, where the emerging Gem
Rends its ſoft Foldage, and ſurmounts the Stem,
In the firm Knot a ſlender Channel ſunk
Receives a Bud from ſome ſelected Trunk;
Rears its young Charge, and from its humid Womb,
Imparts the Vitals of its future Bloom.

Count. *Virgil*, like all the Gardeners of his Time, thought is Precaution neceſſary: but Reaſon and Experience have w convinced us of its Inefficacy. It is not the Knot of e wild Stock, but that of the Graft, which is to be the gent in the Production of a new Tree; for which Reaſon is altogether unneceſſary to perform the Operation on the not of that wild Stock.

Chevalier. I now return to my Memoirs.

If the Inoculation be performed in the mmer Seaſon, when the Tree is impregted with a copious Sap, it is cuſtomary cut off the Head of the wild Stock, four or five Fingers ove the Eſcutcheon, that the Sap may flow over it, and omote its proper Operation: This ſmall Remainder of the ild Stock is likewiſe left above the Place of Inoculation to event the Sap from ſuffocating the Graft, and that it may diſtributed among a Set of other Buds, whoſe Number may leſſened at pleaſure; and this is diſtinguiſhed by the ame of Shoot-Grafting.

Shoot-Grafting.

When the Inoculation is deferr'd to the Ionth of *Auguſt*, or the Autumn Seaſon, will then be improper to accelerate the raft, and therefore it is permitted to be ormant, or at leaſt to act in a languid manner; in order which, the Head of the Tree is not lopt off till the ſucceding Spring, when the Sap will be renovated and give ndications of Life. This Practice has the Appellation of e *Dormant Graft*, and theſe two laſt Manners of Grafting e always the ſame as the Eſcutcheon.

The Dormant-Graft.

A ſixth Method of Grafting, and which only practicable on two Trees that riſe a little diſtance from each other, is performed by opening a Cleft in a Branch of a Tree we diſlike, in order to inſert into it the End of a good

Grafting by Approach.

good Branch, which is ſuffered to continue on its proper Stock; and the Wound ſhould be covered with Wax and a Bandage of Linen Cloth. It is cuſtomary to wait a reaſonable time, in order to be certain that the two little Portions of Bark are incorporated into one Subſtance; the good Branch is then ſever'd from its Stem, to diveſt it of the Sap it would otherwiſe derive from its parent Tree, and that it may be ſuſtain'd by the Aliment it imbibes from the Stock into which it is inſerted, and which is diveſted of its own Wood, that it may derive a new Head from the grafted Branch. This Operation is called *Grafting by Approach*, or *Ablactation* *, and is much practiſed on Trees reared in Boxes which may be placed as near to each other as we pleaſe.

It has been the Opinion of ſome learned Men, that the Circulation of the Sap in Plants is performed like that of Blood in the Bodies of Animals, through a Syſtem of Canals, in which a Number of Valves are open, to afford a free Current to the Fluid that impels them; after which they cloſe up the Paſſages to prevent its Return. It may be difficult to diſprove the Aſcent and Reflux of the Sap; but the Succeſs of Grafting by Approach ſeems to demonſtrate, that there are not any Valves in the Channels of Sap, ſince it flows, without the leaſt Obſtruction, into the inverted Graft. Theſe Ducts therefore of the Sap are a Set of capillary Veſſels, through which that Fluid aſcends, in what Poſition ſoever they are preſented to it.

Grafting by Approach may likewiſe be accompliſhed by other Methods. Inſtead, for Inſtance, of inſerting the End of one Branch into the Cleft of another, they are capable of being united by an exact Coincidence of two ſmall Inciſions, perfectly correſponding with each other, and cut in the two ſelected Branches. Theſe may be croſſed over each other, or bound together at their Extremities, after they have been cut in ſuch a manner as the one may lye exactly over the other. It is not material in what manner they are join'd, provided the inward Bark of the Graft touches the interior Bark of the Stock. When their Union is completed, the Sap, by ſwelling the Veſſels of the external Bark, will form a Tumour around it, which will inſenſibly cover the Wound. The good Branch may then be

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* It is likewiſe called *Inarching*.

ſeparated

parated from the Mother-Plant, and there is this Advan-
ge in Grafting by Approach, that the two Branches
ually contribute to the Incorporation, by the reciprocal
oncourſe of their Sap.

Root-Grafting.

The *Engliſh* and *Dutch* have lately had re-
urſe to a Method which has not as yet been
tabliſhed among us. It conſiſts in Grafting
fine fruitful Branch upon a Stock of Roots;
which effect they chooſe one of the large Rooms of a
ree, whoſe Nature correſponds with that from whence
e Graft is to be taken. The * Root is cut into ſeveral
iviſions; in each of which a Graft is inſerted, agreeably
ſome of the preceding Operations. When a Tree hap-
ns to be vigorous, you may take from it a Root large
ough to furniſh twenty or thirty Stocks; and if the
actice of Root-Grafting were authorized by ſufficient
xperiments, and had been advanced to a certainty of
ucceſs, we might at once plant a Root and its Graft in
e Place where the Tree itſelf ſhould grow; whereas in all
e former Operations, there is commonly a long Interval
Time between Grafting and Tranſplanting.

A Tree may likewiſe be grafted on its own Stock, in
onformity to ſome of the Methods already repreſented;
d when one of its Branches has been inſerted into its
runk, you may likewiſe graft one of its Shoots upon that
ranch, and the Fruit will acquire a finer degree of Deli-
cy, though I am unable to account for the Cauſe.

It is not ſufficient to underſtand the Art of Grafting, and
be capable of adapting the propereſt Method to each †
ant: The Article of the greateſt Importance is to know
hat Stock is moſt agreeable to each Graft; but the whole
ay be referred to very ſimple Principles.

The Manner of Grafting Pears.

Pears are grafted either on Stocks of their
vn kind ||, or on a Quince-Tree. Thoſe
rafts, that are intended to be fully expoſed to
e Wind, ſhould be inſerted into a vigorous
ock, which, by penetrating very deep into
e drieſt Soil, ſecures its Roots from being injured by the
rought that reigns about the Surface.

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* The Art of Husbandry, by *J. Mortimer.*

† Memoirs de M. *le Normand.*

|| Theſe the Gardeners call Free-Stocks.

Thoſe Shoots that are to be formed into Dwarf-Trees, or Eſpaliers, ought to be grafted on a Quince-Tree, which ſhoots to a moderate depth of Earth, and ſlides its Roots between two Stratas of Soil; it likewiſe delights in a cultivated Ground, bears in a ſhort ſpace of Time, and produces better Fruit than a Scion grafted on a Free Stock, unleſs it be very old.

Of Apples.

Apples are grafted on a Crab-Tree raiſed from a Slip, or a Kernel; and likewiſe, on a Codlin, and a Paradiſe Stock.

The Crab-Tree that has been raiſed from a Kernel is a ſlow Plant, but very vigorous, and it lives for a conſiderable time. It is alſo employed in the Production of Standard Pear-Trees.

The Paradiſe Stock ſhoots out but a few Roots, and a ſmall quantity of Wood: It is ſoon fruitful, but is not of any long Duration; it is likewiſe form'd into Dwarf-Trees, in thoſe Places where the View ought not to be intercepted.

The Codlin-Tree is a juſt Medium between theſe two, with reſpect to its Height and Duration; but is more proper to be ſhaped into a fine Dwarf-Tree. Grafted Apple-Trees ſucceed in Soils that are but indifferent, and where the Pear-tree would languiſh for want of Humidity.

Cherries.

Cherry-Trees may be grafted with Succeſs, into Stocks of the black, or wild red Cherries. They are commonly inoculated, and before Midſummer. The *Neapolitan* Medlar is grafted upon a White-Thorn.

Plumbs.

All kinds of Plumbs are propagated either by Cleft-Grafting, or Inoculation on Wild Plumb Stocks, raiſed from Slips, or the Stones of that Fruit.

Apricocks and Peaches.

Apricocks and Peaches are commonly inoculated either on an Almond, or a Plumb-Tree. The Roots of the former ſhoot very deep in the Earth, but thoſe of the Plumb-Tree never deſcend much below the Surface, and they extend in Horizontal Lines: The Grafts therefore are inſerted into Almond-Trees, in Soils that are naturally dry and parching; and where the Roots of the Plumb-Tree would be deſtroyed by the Drought: Whereas in moiſt Lands, where

here the Water riſes near the Surface of the Earth, the each and Apricock are always grafted on a Plumb-Stock, ecauſe the Roots of the Almond-Tree would, by ſhooting their uſual Depth, plunge into the Water, which would rtainly rot them. It may be proper likewiſe to intimate, this Occaſion, that an Apricock is much more agreeable hen it grows in the open Air; though it thrives with uch Security on an Eſpalier, ſituated to the *South* or the *aſt*. The Peach requires the ſame Expoſures, eſpecially e *Eaſtern*; and it delights in a warm and light Soil, like e Apricock.

Theſe are the Principles of the Art of Grafting; but e Diverſity of Soils, Poſitions, and Air, in Conjunction ith the Knowledge and Experience of each Perſon, may uthoriſe ſeveral Exceptions in the practical Part. As to y other Particulars, the Generality of theſe Methods are aſily put in Execution, and their Succeſs is almoſt infallible: ut as ſimple as their ſeveral Operations may be in them- lves, nothing can be more aſtoniſhing than the Effects ey produce: Not that I am for raiſing a branching Head f Apples * on a Plane-Tree; or cauſing a Cheſnut Stock intermix a Vegetation of Beach-maſt with is own Fruit. I would not whiten an Aſh ith the Bloſſoms of Pears, nor propagate xuriant Cluſters of Grapes on a Shrub. heſe are monſtrous Appearances, inſtead of real Wonders; or as there is not the leaſt Conformity in the Nature of theſe lants, ſuch inconſiſtent Productions will be the mere Effect f Force; their Juices will be diſagreeable, and the Fruit an only be conſider'd as a barren Novelty. I have an qual Averſion to thoſe fanciful Intermixtures, which ſome urious Perſons are ſo ſolicitous to procure in their Gardens; uch, for inſtance, as a blended Growth of Peaches, Plumbs, nd Apricocks on an Almond-Tree, and a Variety of different Cherries on one Stock. Theſe Aſſortments are very racticable on Trees, that have any juſt Correſpondence with heir Grafts; but my Admiration is created, when I be-

The ſurpriſing Effects of Grafting.

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* —— Steriles *Platani* malos geſſêre valentes;
Caſtaneæ fagos, ornuſque incanduit albo
Flore Pyri.

hold a bad Tree ſuddenly meliorated, and a good Tree render'd ſtill more perfect *.

A Plant taken from the Wilds of a Foreſt ſoftens its ſavage Nature, and will ſometimes diveſt itſelf of its Thorns, when it happens to be aſſociated with a Domeſtic Plant; and even this will be improved by its Commerce with a better Tree. This laſt will alſo acquire a new degree of Melioration, when we retrench its Foliage, and graft one of its Scions upon its own Stock. I am delighted to behold a Perſon employed, amidſt the Plants of a ſpacious Garden, in reforming, by proper Methods, a Growth of natural Wildings; to ſee him baniſh one particular Species from his Domain, while he affords a favourable Reception to another, and naturalizes none but uſeful Subjects. He cultivates mutual Alliances between his Plants, promotes thoſe Adoptions that unite divided Families, and transfers a Dignity to thoſe that were not conſpicuous in the Community, till then. He refines Ruſticity into Politeneſs, and infuſes a tractable Softneſs into ſavage Diſpoſitions. In a Word, our Gardener appears to us with the Air of a Legiſlator, who is ſedulous to civilize a barbarous People.

Count. We will defer the ſecond Memoir to another Reading.

Chevalier. I have a ſtrong Inclination to devote an Apprenticeſhip to the Art of Grafting; and ſhall deſire the Gardener to favour me with his Inſtructions.

Count. Let us return to the Seminary; and as to the Gardener's Office I intend to take it upon myſelf.

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* The Tree, ſtrictly ſpeaking, is not changed: A Wild Stock always continues the ſame, and all its own Productions will be wild, after its Reception of a Graft. The inſerted Branch likewiſe retains its natural Qualities, but it receives its Nouriſhment from its Union with the Wild Stock; and from hence reſults that Growth of good Fruit on a bad Tree, which occaſions us to ſay the Tree is changed, or render'd perfect.

THE
CULTIVATION
AND
Manner of PRUNING
FRUIT-TREES.

DIALOGUE VIII.

he COUNT. *The* PRIOR. *The* CHEVALIER.

ior. BEFORE the Chevalier places my Memoirs among the reſt of his Collections; I am deſirous of ſubmitting it to your Lordſhip's Judgment.

Obſervations on PRUNING.

Let us quit the Grafting-Knife at preſent, for that which e employ in Pruning; and we will now proceed to this rand Science of the Curious. The proper Method of performing it can only be acquired by repeated Practice, and opens to us a thouſand Reſources and Expedients, of hich an unexperienced Gardener can, at firſt, have no lea. Let us therefore endeavour to render the Principles of this Art intelligible, ſince they are the Baſis of various Operations.

There are three Glaſſes of Fruit-Trees; Standards, Dwarfs, and Eſpaliers; and to theſe I ſhall confine my preſent Obſervations. Counter-Eſpaliers, which were raiſe Breaſt-high, on a Lattice-Work in the open Air, have been diſcontinued for ſome time. Their Productions are ſeldom perfect, and their Shade is very incommodious to all the adjacent Plot.

Standards.

It is not cuſtomary to prune Standard-Trees, unleſs in their firſt Growth, in order to form the Head, and grace them with a pleaſing Shape.

It muſt be acknowledged, that thoſe Fruits which ripen on Standards, in the open Air, have more palatable Juices than thoſe Productions that are matured by the Sun-Beams, reflected from a Wall; but there is one conſiderable Advantage which attends the manner of raiſing Fruits on Dwarfs and Eſpaliers. The Dwarf-Tree preſerves moſt of the ſalutary Temperament and Fecundity of the free Air. The Eſpalier preſents us with Fruits of a ſuperior Size and Beauty, and preſerves its Gifts in a much better manner. Theſe important Benefits are ſtill enhanced by the pleaſing Figure of the Tree, and the Air of Regularity diffuſed through the whole Garden; and they eaſily induce us to forget ſome little degrees of Accuracy, which are frequently imperceptible, after all the Pains and Expence that have been employed to procure them.

The Manner of forming a Dwarf-Tree.

The Beauty of a Dwarf-Tree conſiſts i the Lowneſs of its Stem; the circular Expanſe of its Branches; a proper Vacuity i the Middle; a well-proportion'd Vaſe; a equal Thickneſs in its Contour, and an Elevation limite to ſix or ſeven Feet. It it is ſuffer'd to enlarge its Circumference with the utmoſt Freedom, but we check it i its Aſcent. It muſt likewiſe maintain a good Correſpondence with its Neighbours, and ſhould never incommode them with any encroaching Shade.

In the firſt Formation of a Dwarf-Tree its Stem ſhoul be cut at a little Diſtance from the Ground, by which Means the Sap will be turned back on the Buds it would abandon, were it permitted to aſcend higher. The ſeveral

Branches

ranches that compoſe the Vaſe, muſt be extended from e Sides of the Stem; and there are ſome curious erſons, who diſpoſe their Dwarf-Trees into a very fferent Shape. They form, for inſtance, three diſnct Growths of Stages of Verdure, on the Trunk. he firſt has the greateſt Thickneſs and Expanſion, and e other two riſe one above another in a proportionable iminution. This Figure has an agreeable Air, and is id to be as productive of Fruit as any other Form.

The Manner of forming an Eſpalier.

In order to train up a fine Eſpalier, the ree ſhould have a Stem of a middling eight, if its Branches are to ſhoot to the op of the Wall; but it ſhould hardly ave any, if the Bottom of the Wall is to e covered with its Spread. A large Number of ſtrong ranches ought to be extended from each of its Sides and an Equi-diſtance in order to form an exact Fan, free om all Vacuity, and without croſſing one another. In Word, it muſt never be permitted to exceed the Dienſions it ought to acquire.

In Order to make the Tree ſuſceptible of this beauteus Form, Care is taken to regulate the Courſe of the ap, in ſuch a Manner as may render its Operations equal on each Side. All uſeleſs and redundant Shoots are etrenched, as well on the fore Part as toward the Bottom f the Stem; and if it be neceſſary to acquieſce with one f the Inconveniences, either of a Vacancy in the Spread, r the mutual croſſing of the Boughs, the latter is always referred, becauſe the croſs Poſition of a Branch is not o offenſive to the View as an empty Space.

But as the graceful Air of the Heads is not the only dvantage we endeavour to derive from Pruning, which more peculiarly calculated to ſecure a complete Growth f Fruit; it will be proper to obſerve the following Meod, which is entirely founded on the Nature and Uſe of ifferent Branches.

Each particular Branch produces others, and the Offpring of a Mother-Bough become Parents in their turn. very Branch that hath been ſhortened by the Pruningnife will ſhoot out a new one, and generally ſeveral toard its Extremity. That which ſprings at the leaſt

Diſtance from the End has commonly the beſt Nouriſhment and the largeſt Dimenſions; which may poſſibly be owing to the Air which operates with more Freedom on that Part of the Tree. The other Boughs that are generated lower on the ſame Branch, and nearer the Stem, are proportionably diminiſhed in Subſtance and Vigour. This is the uſual Proceſs of Nature, and it can never be inverted without a Detriment to the Tree. The Branches that grow different from the Manner I have deſcribed are called Branches of falſe Wood.

Branches of falſe Wood.

This Appellation is likewiſe given to a Bough that ſprings from an old Branch, in a Part where no Eyes were obſervable.

Wood-Branches.

The large and ſtrong Branches which form the Head of the Tree are diſtinguiſhed by the Name of Wood-Branches, becauſe they are appointed for the Production of that Subſtance, and are to ſerve as a Baſis to the Leaves and Fruit.

Fruit-Branches.

Thoſe that are weak are called Fruit-Branches, becauſe they are commonly productive of the Buds. There is this Difference between an Eye and a Bud; The Eye is a little pointed Tumour, incloſing a Packet of Leaves, and the firſt Rudiments of a Branch: The Bud is a Tumour of a larger Size and a rounder Form, enfolding the Flowers and likewiſe the Fruits that ſucceed them.

If we lop off the lateral Wood, as well as that which grows above the little Fruit-Branch, this will ſoon be rendered vigorous: It will even become a Wood-Branch, and will alſo defraud the Buds of their Suſtenance, inſtead of cauſing them to open. But if this Branch be left growing on another that is vigorous and of ſome Length, the Sap will extend, diſtribute and refine itſelf to its laſt Perfection in a Profuſion of Leaves; from whence it flows back much better digeſted, and more adapted to enter the infinitely delicate Veſſels of the Buds. The Fruit always periſhes on thoſe Branches that are diveſted of their Foliage; and the fineſt Flavours are imparted by

y thoſe Trees that are not deprived of any of their
eaves: The Sap likewiſe, in its refluent Paſſage from
ne Leaves, is ſo moderate in its Quantity, and of ſuch a
ne Conſiſtence, that it hardly gives any viſible Enlarge-
ent to the Branch that bears the Fruit: This therefore
enerally dies in the Space of a few Years. Theſe Cir-
umſtances incline me to ſuſpect that the Sap aſcends di-
ectly at firſt into the Wood-Branches, and never unfolds
nd nouriſhes the Fruits till its returning Flow, after it has
een refreſhed, ſubtilized, and perfumed in the Leaves.
ut I only hint at this Proceſs as a Conjecture, on which
will not preſume to lay any Streſs.

Count. You will excuſe me, Sir, if I cannot be entirely
f your Opinion in this Particular. I am indeed per-
aded as well as your ſelf, that the Leaves are nutrimen-
al to the Fruit; nay, their Uſe is ſtill more extenſive, for
ey afford an Aliment to the Tree and even to its Roots.
t is likewiſe true, that as the firſt Juice which the Heat
npels to the Extremity of the Branches, in a rapid Aſ-
ent, is crude and groſs; it is better qualified to lengthen
nd invigorate the Wood than to open the Buds. I alſo
gree, that a moderate Quantity of Sap by being better
igeſted, and more intimately blended with the volatile
articles of the Air, is rendered more proper to form the
ruit in a ſhort Time; as is evident by the Fruits them-
elves which are pierced with Worms, and raiſed to a ſud-
en Maturity. Such Obſervations as theſe gave Occaſion
o the Practice of retrenching ſeveral Roots from a Tree
at produces too much Wood, without any Fruit. It is
ertain that a very copious Sap facilitates a Growth of
Wood; and that a moderate Quantity of this Fluid is
ore productive of Fruit. But I much doubt whether
eſe Effects reſult, as you conjecture, from a regular and
onſtant Circulation. I have made ſeveral Experiments
hich demonſtrate the Elevation of the
ap, and have likewiſe made a Number of
thers which ſufficiently prove its Deſcent:
But theſe contrary Motions are alternate, if
am not deceived. The Heat of the Day
auſes the Sap to aſcend in direct and lateral
ines; and it tranſpires thro' the Pores of

The alternate Circulation.

Vegetable Staticks, by *S. Hales*, F.R.S. 1727.

the Leaves to ſuch a Degree, as greatly leſſens the Weight of the Tree. At the Return of Night and cool Air the Sap has a contrary Motion. The Leaves which diſpenſed their Exhalations during the Day imbibe the Dews and Vapours of the Night, and ſhed the Humidity through their Branches. When the Sap has been recruited and brought to Perfection by the Influence of the Air it flows back to the Roots; by which Means the Tree and its Fruit repair the Loſſes they ſuſtained by Day, and are agreeably refreſhed. Several curious Perſons have from hence been induced to water not only the Stems of their Eſpaliers and Standard Trees during the Heats, but likewiſe the whole Growth of Leaves; and they have ſucceeded perfectly well. With Reſpect to any other Particulars, Sir, as you are not a rigorous Advocate for the conſtant Circulation, I am as moderate with Regard to that I call alternate, and ſhall now be glad to be favoured with the reſt of your Memoirs.

Prior. A right Knowledge of the Branches muſt be obtained, in order to render the Sap more beneficial, by retrenching ſuch as are uſeleſs, and by a prudent Management of thoſe that are good. No Regard is paid to a Branch, unleſs it ſhoots from one that was lopt at the laſt pruning; and we as little eſteem thoſe that ſpring immediately from the Stem or from an old Branch, where ſuch a Production was not expected. We even diſregard that which is produced by a good Branch, contrary to the common Order of Vegetation; and which is large and vigorous, though it be ſituated on the lower Part of the parent Branch; and at the ſame Time is ſmall in its extreme Parts. All theſe Shoots are Branches of falſe Wood, and as they are not ſo thriving as the others, it is their common Fate to be lopt off; unleſs it ſhould happen to be foreſeen that they will be neceſſary to fill a future Vacancy, or that they will proſper better than thoſe that grow in the common Order.

Marks for diſtinguiſhing the Branches.

It is not ſufficient to diſtinguiſh the Fruit and Wood-Branches, from thoſe of the falſe Wood that are uſually retrenched; but it is likewiſe neceſſary to have a proper Mark for knowing the good Branches of Fruit and

Wood from thoſe that are bad. This Mark reſults from ne Quality of the Eyes and Buds, the Complexion of ne Bark, and the Vigour of the Branches. If a Branch e extremely incompact and has its Eyes but little ſweld, and very diſtant from one another, it is called a *agged Branch*. It is remarkable for its faint Complexin, and as it is entirely uſeleſs, it has no Claim to any avour and ought to be lopt off.

If a Branch ſwells to a Finger's Thickneſs, and is haped like a Taper with its Eyes very lank and remote om each other, it is a *voracious Branch*, which drains all he Juices from its Parent in a very unprofitable Manner, nd ſhould therefore be cut off. The Wood and Fruit-ranches ought to have their Eyes and Buds well roundd and plentifully nouriſhed; their Bark ſhould be bright nd lively, and their Air vigorous, otherwiſe they are reated with as much Severity as thoſe already menioned.

When this preliminary Knowledge is acquired, all the exterity of pruning is comprehended in three Particuars; Propriety, Oeconomy, and Precaution. Propriety s requiſite in order to form the Tree into a graceful hape; Oeconomy is neceſſary for the Diſtribution of he Sap through every Part; and Precaution muſt be emloyed in the Preparation of thoſe Branches that may aferward be uſeful.

Propriety is the Method of cultivating the Eſpalier, r Dwarf-Trees into a perfect Figure; by retrenching ll Luxuriancies that introduce Confuſion and Inequality.

Oeconomy conſiſts in an equal Diffuſion of the Sap n every Side, and in Pruning ſometimes long and ſomeimes ſhort. Pruning in Length is performed, by leavng ten or twelve Inches in a Wood-Branch: Short Pruning ſuffers no more than two or three Eyes to remain n ſuch a Branch.

Long Pruning is employed on vigorous Trees that are o be rendered fruitful; but if they are pruned ſhort, it will be neceſſary to leave them a large Number of Branches, for the more effectual Diſtribution and Correction of the Sap: And when this happens to be the Intention, Pruning is ſometimes entirely omitted.

Short Pruning is practiſed on weak Trees, eſpecially in their firſt Growth; and we then ſuffer but few of their Branches to remain; becauſe as none of their Productions have yet been perfect, we leave them but little Wood, in hope that their firſt Shoots will prove more vigorous, and contribute to the future Expanſion of a fine Head.

Oeconomy extends its Operations to the whole Tree, and to each of its Branches. Some Retrenchments confine the Fruit to one particular Part, others diffuſe Fertility through all the Plant. When a uſeleſs Branch is ſhortened, and cut about the Thickneſs of a Crown-piece above that which ſuſtains it, the Sap, being then obſtructed in its direct Flow, generally cauſes two lateral Fruit-Branches to ſhoot forth. When a Tree exhauſts itſelf in Wood, and no longer produces Fruit, or only affords it on one ſide, the barren part muſt be pruned very ſhort; or it may be neceſſary to ſtrike immediately at the Source of the Diſorder. As the whole Quantity of uſeleſs Wood is generated by the exuberant Vigour of the Roots, it is cuſtomary to remove the Earth from theſe in the Spring, and to cut off two or three of the ſtrongeſt, eſpecially on that ſide where the Branches are moſt productive of Wood without Fruit. As this Operation renders the Sap leſs redundant, and digeſts it in a better manner, it then ſettles in thoſe Parts through which it flowed before, and gently impregnates thoſe Buds of Fruit, which the Rapidity of its former Courſe, or the Groſſneſs of its Qualities had cauſed it to abandon. In what manner ſoever this Operation is performed, the Reality of the Fact is evinced by Experience; and we have no better Expedient for producing Fruit on a Tree, or any Part of it, that was unfertile before.

Precaution is altogether as neceſſary as Oeconomy and Propriety; and it conſiſts in forming a previous Judgment of the Branches, and making a diſtant Proviſion for filling up all Vacuities in an expeditious manner. It enables us to ſubſtitute a new Growth, in the room of thoſe Branches that are either decayed, or which we find it neceſſary to retrench; and it likewiſe teaches us prefer a Branch of falſe Wood, when it is more beau- ful, better turned, and ſituated to a greater Advantage an its Companions.

A curious Perſon, by the Aid of theſe Principles, and few prudent Exceptions ſuggeſted by Experience, nders his Plants tractable to his Idea of a fine Tree. e commands with the Authority of a Maſter, and meets ith a pleaſing Docility through his whole Domain. ut leſt he ſhould be miſtaken in his Conduct, and find aſon to believe his Plantation leſs to blame than him- lf; whenever a fine Sunſhine invites him to walk in e Winter Seaſon, he reviſits the Plants he has pruned; e frequently reviews the whole, and criticiſes his own roceeding with the utmoſt Impartiality. He walks ith his Pruning-Knife in his Hand, both in Winter nd Summer, and meets with a Variety of Circumſtances rectify.

Chevalier. Though I think I underſtand the greateſt art of what the Prior has been ſo good as to read, yet muſt intreat him to oblige me with an Application of is Principles to ſome particular Tree: Each Remark ecomes more intelligible, when the Object is preſent- l to our View. But I am ſurpriſed to hear at the oncluſion of the Memoirs, that we ought to employ e Winter-Seaſon in criticiſing on the Pruning we have eſtowed on our Trees; ſince, if I am rightly inform'd, runing is never practiſed till the Winter is paſt.

The Seaſon for Pruning.

Count. There are ſome Trees indeed, hoſe pruning muſt be deferred till all eir parts are put in Motion by the p. Such, for Inſtance, are thoſe Plants at ſhoot out an exceſſive Quantity of Wood; and hen theſe have been already advanced by the Sap, runing weakens them to a proper degree, and diſpoſes em to yield Fruit. Of this Nature likewiſe are Apri- ock and Peach-Trees, and we may delay their pruning ll the Seaſon of their Bloſſoms, becauſe a ſevere Win- r is injurious to ſeveral of their Buds; and when we rbear to prune them till they are in Flower, we may e certain of preſerving no Bloſſoms, but ſuch as have ot had their Piſtils impaired by the Froſt.

We may ſafely begin to prune all other Species o Fruit-Trees in general, and even the Vine, immediately upon the Fall of the Leaf; we may likewiſe continue this Operation at our leiſure during the Winter-Seaſon; and the whole will be render'd more proſperous, by not being performed in a precipitate manner : but if this long and important Work ſhould interfere at the beginning of the Spring, with a Number of other Labours, it will be but ill performed itſelf, and wil likewiſe cauſe the others to be defective.

Chevalier. Our old Gardener, who believes himſel very expert in his Profeſſion, has told me ſeveral times, that the young Wood is too much endangered by being cut, and expoſed to the Froſt, and that it never ough to be pruned till Spring.

Count. This is the uſual Language of a prejudiced Opinion; but we can oppoſe to it the Experience o thoſe * Perſons who are moſt diſtinguiſhed by their Proficiency in this Art. They aſſure us, that pruning thei Trees, and even the Vine, before Winter, and during the Continuance of that Seaſon, has never been attended with the leaſt Inconvenience, but on the contrary wa productive of the beſt Fertility. If any Detriment is t be apprehended from pruning in Winter, it has no relation to the Tree, but only to the Gardener, who perhaps may ſuffer from the Severity of the Cold. But a the Wood is not eaſily cut at that time, and commonl proves very untractable under the Pruning-Knife, i furniſhes the Gardener with a Pretext for conſulting his own Eaſe, and waiting for a more favourable Seaſon.

Chevalier. I intend to furniſh my ſelf with a Set o Grafting and Pruning-Knives, as ſoon as poſſible.

Prior. Your Reſolution is very proper, Sir. The Art have this in common with Virtue, that the Knowledg of them is ſufficient to render us enamour'd of thei Excellence; but this Knowledge is never to be attained without the practic Part.

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* M. de la *Quintinie* & le *Normand.*

Count. I would likewiſe adviſe you to provide yourſelf with a little Hand-Saw that will claſp like a Knife upon its Haft. With this you are to cut from the Quick all the Stubs or Ends of dead Wood, and may ſaw away the ſtrong and ill-placed Branches, on which the Pruning-Knife would make but little Impreſſion. When you employ this latter, you muſt be always careful to clench your Left Hand ſtrongly upon the Branch you would cut off, and below the Place where you make the Inciſion; otherwiſe you will expoſe it to the Danger of being wounded by the Pruning-Knife. But if ſuch an Accident ſhould happen, a Vine-Leaf will ſtop the Flow of Blood; and the ſofteſt Leaves are moſt ſerviceable on that Occaſion.

Prior. The Chevalier will hardly charge himſelf with the Management of every Operation in Gardening; and it will be ſufficient for him to preſide over thoſe who perform them. A careful Obſervation of the particular Manner of pruning Dwarf-Trees, Eſpaliers, and other Fruit-Trees, in celebrated Gardens; a frequent Converſation with the Perſons employed in thoſe Works, and a proper Compariſon of their Methods and Principles of Art, will enable him to form a due Judgment of all that is tranſacted upon his own Land, without being a Gardener himſelf. You will by theſe means, Sir, become an Inſpector of your own Gardens, and will acquire thoſe juſt Ideas, as will make it neceſſary for all your Workmen to be deſirous of your Approbation, and apprehenſive of your Diſſatisfaction. If you once teach them to reſpect you for your Judgment, you will be always well ſerved.

Chevalier. I own that to be true, Sir; but one muſt firſt be a Soldier in order to make a good Officer.

Count. The Chevalier is determined to furniſh himſelf with a Pruning-Knife, and he ought to be capable of uſing it in a proper manner. But let him rather be the Superintendant of his Gardens, than engage in every Operation neceſſary to their Culture. I would however adviſe him to reſerve for himſelf the Pruning of the two moſt diſtinguiſh'd Species; I mean, the Orange and

Fig-Trees; and we may now acquaint him, in few Words, with the right Method of managing them.

The Plantation of ORANGE-TREES.

Chevalier. Is your Lordſhip for a Walk under the Orange-Trees that border the *Engliſh* Parterre?

Count. Very willingly, Sir. Of what Age do you judge the Orange-Trees in thoſe large Boxes to be?

Chevalier. I will gueſs thirty Years at a venture.

The Duration of Orange-Trees.

Count. There is not one in all thoſe two Rows, but what is above a hundred Years old. But I know ſome whoſe Hiſtory will engage your Attention much more than thoſe which I have inherited. An Orange-Tree ſeems to be ſtill in its youthful Vigour, and is cover'd with Flowers after it has been in the Ground for two or three Centuries. And this Truth was demonſtrated by that magnificent Orange-Tree at *Verſailles*, which is called the *Great Bourbon*. It was ſeized with the Eſtate of the Conſtable of *Bourbon*, in the Year 1523, and was then the fineſt Tree in *France*, and judged to be ſixty or ſeventy Years old, which added to two hundred and ten, amount to almoſt three hundred Years. There are ſeveral of theſe Trees at *Fontain-bleau*, that were very fine even in the Time of *Francis* I.

The Merit of an Orange-Tree.

Prior. This long Duration is a very uncommon Merit at preſent: But nothing can be more ſatisfactory than the Cultivation of a Plant which never diſcontinues the Delight it affords us by its immortal Verdure, if I may be allowed that Expreſſion; and which bears, at the ſame time, a fragrant Bloom of Flowers, and a Diverſity of Fruits in their Infant Growth and their full Maturity. It unites the amiable Appearances of ſeveral Seaſons, and the Donations of various Years.

Chevalier. I ſhould think a Growth of Orange-Trees not eaſily attainable.

Count. It is far from being ſo difficult as you imagine. We yearly receive from the *Genoeze*, and Natives of *Provence*, young Orange and Citron-Trees ready grafted;

and theſe will ſuffice for the firſt Stock of your Orange-Plantation, and will likewiſe amuſe you without much Expence. You may augment the Stock in a few Years, if you are ſo diſpoſed, by planting in the Month of *March*, and in a proper Bed, the Seeds of wild and bitter Oranges, which by the Aid of a Glaſs-Saſh, and due Degrees of Heat, will riſe near two Feet in Height at the End of the firſt Year; and they may be tranſplanted at the Expiration of the ſecond into Pots, in order to be grafted. When your young Plants are once placed in Pots, you may remove them into the Sunſhine or Shade, as you find it neceſſary; and by theſe means their Growth will be ſoon advanced.

Prior. You will likewiſe be fonder of ſuch Orange-Trees as theſe, than of any others, becauſe you may properly conſider them as Contemporaries of your own rearing.

The proper Soil for Orange-Trees.

Count. As this fine Tree is not ſo natural to our Provinces, as it is to the Southern Parts of *France*, we muſt quicken the Tardineſs of our Soil with a Compoſition that may cauſe it to correſpond as much as poſſible with the Temperament of warmer Climates. It delights much in a Soil mixt with Sheeps-Dung that has reſted two Years; old Compoſt, or the Soil of a Sewer, muſt compoſe a third part; and another third muſt be fat Land, taken either from a Marſh or a Hemp-Cloſe.

When the proper Seaſon comes for lodging your young Stems in Boxes, theſe latter ſhould be always proportioned to the Heads of the Plants. The Stems, when they are even become vigorous, will accommodate themſelves to a Box of about fifteen Inches Diameter; but they muſt be placed more at large in others, when the Tree ceaſes to augment its Foliage, and informs you, by its languid Air, that its Soil and Suſtenance are inſufficient. At the Cloſe of ſeven or eight Years they may be tranſplanted, with all their Earth, into their laſt Boxes, whoſe Diameter may be about twenty four Inches.

All theſe Boxes ought to be made of entire Heart of Oak. The ſmall ones may be compoſed of little oaken

Planks, ſomething more than an Inch thick, and they can't be too ſolid in their Conjunction. Your Boxes will ſoon decay, if you neglect to caſe them over with a double Lay of green Paint liquified with Oil. Which laſt is likewiſe as neceſſary on the Inſide, to preſerve the Wood from being rotted by frequent Waterings, as it is on the Outſide, to ſecure it from the Rain and Sun.

Chevalier. I obſerve, on each ſide of the large Boxes, a Door with double Hinges, and two Iron Bars. Will your Lordſhip be ſo good as to inform me of the Uſe to which theſe Doors are appropriated?

Count. They are made to admit the proper Renovations of Soil, and to enable the Gardener to clear the Box of the liquid Sediment that is collected and thickened at the Bottom; and likewiſe to pare off the extreme parts of the Mould, that it may afterward be taken out with eaſe, when it becomes neceſſary to tranſfer it into a new Box.

In order to place ſmall Shrubs, and more eſpecially Orange-Trees, in Boxes, after a proper manner, the firſ Proceeding is to cover the Bottom of the Box with larg Pieces of Brick and Potſherds, which afford the Wate an eaſy Flow through the Cavities that are opened a the Bottom. Were it not for this Precaution, the Humidity collected by the Sediment would rot the Box, an deſtroy the Tree by an immoderate Chilneſs. Whe this Proviſion has been made for the Security of the tender Plant, the Bottom and Sides of the Box muſt b lined with good Soil, prepared in the manner I hav already mentioned: In this Soil the Tree ſhould be inſerted in an upright Poſition, and the Ball of Earth a its Roots muſt be leſſen'd, not with any Intention t ſtrengthen the Tree, but rather to prevent its requirin a large Quantity of Earth, and to confine it, by a moderate Vigour, to a juſt Proportion with the Box. A new Maſs of Earth muſt then be heapt up on every ſide and preſſed into a due Compactneſs, in order to ſecur the Stem from violent Winds, and cauſe the Earth t ſettle round the Roots with as much Exactneſs as poſſible.

Whe

When the Tree is to be placed in the Box, Care ould be taken to raiſe the upper part of the Clod of arth at its Roots higher than the Rim of the Box, be-uſe the Weight of the Tree and the Action of the oots will afterward lower the Clod by degrees to a evel with the Edge of the Box. If this Precaution be glected, the Tree in proceſs of Time will ſink too w.

Chevalier. Will not the upper part of the Clod be ex-ſed to the Air, in the Poſition your Lordſhip recom-ends?

Count. It ought to be cover'd over with Earth, and e whole ſhould be ſuſtain'd by ſmooth Staves diſpoſed und the edge of the Box.

The Form of an Orange-Tree.

The Head of an Orange-Tree is ſome-mes ſhaped like a fine Buſhy-Dwarf, ithout any Vacancy within. Some erſons chooſe to diſpoſe it into a per-ct Globe; others teach it to aſſume the Form of an emiſphere, by rounding the Top and Sides, and pru-ng the lower part horizontally.

Chevalier. This Hemiſphere, with its Stem, reſembles e Figure of a Muſhroom.

Count. The principal Beauty of an Orange-Tree con-ſts in the Regularity of its Head; and as this Beauty is ore durable than the Flowers, the Pruning-Knife is iefly employed to procure it, unleſs the Flowers are tended to be multiplied.

Chevalier. Are theſe Plants pruned in a different anner from other Fruit-Trees?

The Manner of pruning an Orange-Tree.

Count. Yes, Sir, in ſeveral Particulars. hen Fruit-Trees are pruned, Care is ken to preſerve the ſmall Branches in thriving State, in order to promote eir Fertility; but they are retrenched an Orange-Tree, that a Vacancy may be open'd ithin. The ſame Method is taken with the Branches at ſhoot downward in a perpendicular Direction; and kewiſe with thoſe that are diveſted of their Leaves, hich only happens when the Tree is weak or diſ-mper'd: But we carefully preſerve all the vigorous

Branches, whoſe advantageous Situation contributes t the Regularity of the Head. Great Favour is likewi ſhewn to a Branch of falſe Wood, as well as to one th has been generated contrary to the common Orde when any Advantage is to be expected either from i Vigour or Situation.

If the Tree ſhould happen to be diſfigured by Showe of Hail, boiſterous Winds, an impairing Diſtemper, any other Accident, it is cuſtomary to examine wh Parts of it are moſt entire toward the lower part of t Head, and the Branches are pruned off to that Place or, in other Words, they are ſhorten'd to the very Pa that exhibits the Preparations for a new Foliage, equ almoſt to the former in every Particular, and who agreeable Form, by advancing to its full Perfectio will afford its Owner a Reſtitution for the Loſs he ſu tained.

This amiable Tree is obnoxious to the Malignity Diſtempers, the Ravages of Vermin, and the injurio Severity of Cold. If it aſſumes a yellow Complexio it ought to be removed into the Shade, and ſhould on be expoſed to the Sun for two or three Hours, for fe of exhauſting its nutrimental Juices: Or perhaps it w be proper to ſtrike directly at the Origin of the Ev which may probably proceed from the Roots; and th it will be neceſſary to ſupply them with new Earth, ar even to cut off all thoſe that ſeem uſeleſs and decayed.

Chevalier. Can one have a Sight of the Creature th is ſo injurious to this Tree?

Count. They are ſeen but too eaſily, and you ma obſerve ſeveral on this Leaf.

Chevalier. I don't diſcover any Animal there, ar can only ſee a Cluſter of blackiſh Spots, ſome larger tha others.

The Vermin that injure the Orange-Tree.

Count. Thoſe Spots are the Verm I mentioned. The Creature is at fi a little imperceptible Inſect, that faſte itſelf either to a Leaf, or the Stalk, ar then ſucks out the Humidity that prov its Nouriſhment, without making any Puncture in t Leaf. The Back of this minute Inſect is converted i a Cruſt, or immoveable Covering, which is gradually icken'd and enlarged, and under which the Creature ves, and ſeems to be a Part of it. This Animal is viparous, and becomes the Parent of a young Progeny ke itſelf. Each Inſect is thought to be Male and Fe-ale, ſince they all ſeem to have Young-ones.

Prior. Under the Spot or Shell of one of theſe Crea-ires, that was not the Twelfth part of an Inch in ength and Breadth, I obſerved a few Days ago, by e Aid of a Microſcope, a prodigious Number of little nimals, that ſeparated from each other at the Open-g into their Habitation, and then diſperſed them-lves like Sheep in a verdant Meadow. I likewiſe ok notice of a ſable Speck under the Covering which cloſed them, together with the Remains of ſeveral aly Shivers, which inclined me to believe they were art of the Carcaſe of the Dam, who had exhauſted her wn Subſtance in the Generation and Nouriſhment of r Offſpring.

Count. In order to guard againſt the Damage an range-Tree may ſuſtain from the multiplied Race of eſe Inſects, by their draining it of its Juices, and pre-nting a due Perſpiration through its Leaves; it will proper to rub the invaded Branches, and their Foli-e, with a Bruſh ſteeped in Vinegar, or a piece of Li-n dipped in Salt Water. This Method will ſome-mes exterminate the whole Breed; but we have fre-ently the Mortification to find it ineffectual.

The third and greateſt Hazard to which theſe Trees e expoſed is the Severity of the Cold, againſt which e Green-houſe is the beſt Preſervative: It is therefore ſtomary to lodge all the Boxes in it from the middle *October* till the return of a more favourable Seaſon. hoſe who have an Inclination to gather Flowers, in e Winter Months, ſhould not forget to pinch off the xtremities of ſome of the ſmall Branches in *September*. his Method will prevent them from unfolding their her Buds till the Seaſon be more advanced, as has een already obſerved when Roſe-Trees were the Subject our Converſation.

Chevalier. Is the Culture of the Fig-Tree attende with any Difficulty? I muſt confeſs, it is the Plant ſhould be moſt deſirous of rearing, becauſe its Fruit perfectly agreeable to my Taſte.

The Plantation of FIG-TREES.

The Merit of a Fig-Tree.

Prior. The Fig-Tree is eaſily cult vated; it advances with a ſpeed Growth; its Fruits may be ranked a mong the moſt perfect Kinds, and produces them twice in each Year. Theſe four Advan tages are not comprehended in any other Plant.

It muſt be granted, that all ſorts of Figs are not ſuc ceſsful in our Climate; but the White Figs, as well th round as the long, and which are the only Species tha are now cultivated at *Paris*, are ſo extremely delicat and advance to ſuch Perfection, that neither *Langued* nor *Provence* can boaſt of any that exceed them; an this has been frequently acknowledged to me by ſever curious Perſons of thoſe Provinces who delight in Ga dening, and are not prepoſſeſſed with any Partiality their own Country. They likewiſe have aſſured m that ſome of their Countrymen were ſo ſtruck with Ad miration to find the round Fig ſo ripe in Autumn a *Verſailles*, and ſo delicious in each of its Seaſons, tha they diſtinguiſhed it in *Provence* and *Languedoc* by th name of the *Verſailles Fig*, and thought it preferable all others.

Count. I have heard ſome Travellers, who even ido lize the Productions of *Italy*, acknowledge that the never taſted any Fruit that was enriched with a mor exquiſite Juice than our Figs of the ſecond Seaſon.

Chevalier. I am determin'd then to have a Plantatio of theſe Trees.

Count. Nothing can be more practicable; for th *Genoeze* Merchants will ſoon furniſh you, upon very rea ſonable Terms, with all the Materials neceſſary to form a fine Growth of Fig-Trees. But you may raiſe you Plantation at a leſs Expence, from the rooted Fibres Suckers, Slips, or Layers of the moſt approved Trees

d which will ſeldom fail of being ſucceſsful and fer-
e in a ſhort time.

The fine Slips are taken from the Southern Side of a
ree well rooted in the Earth; and they may be re-
anted in the Spring or Autumn.

Layers are Branches bent into the Earth without be-
g ſever'd from the Tree, and they take Root in that
rt of the Ground into which they are ſunk. They
e afterward disjoined from the Tree, by cutting them
om the Stem, in the ſame manner as is practiſed on
e Vine.

There is another Method of diſpoſing Layers, which
eaſily performed. You cauſe the Branch of a Plant
paſs through a Tin Funnel, or a Wicker Baſket, fill-
with Earth, into which the Branch will ſoon ſhoot
veral Fibres. It muſt then be cut aſunder below the
ſket, which ſhould then be placed in the Earth. This
pedient ſecures the Roots from all injurious Treat-
ent, and never retards the Plant, which will not need
y Graft, ſince it is already a Species that produces
e beſt Kind of Fruit.

Should you be deſirous of raiſing Fig-Trees that will
ar Fruit the enſuing Year, lay the fineſt Branches of
old Tree in the Earth, and I can aſſure you there is
great Myſtery in the Operation. You cauſe a Branch
a moderate Size to paſs through a Box, after you
ve peeled off a round of Bark about a Finger's breadth,
d between two Knots. The part ſo ſtript muſt be
poſed the breadth of four or five Fingers above the
tom of the Box into which it is inſerted; and when
Branch has been covered over with Earth, it will
ot out ſeveral Roots from the wounded part; and it
uld afterward be ſever'd from its Stem, by cutting it
below the Box.

When your young Fig-Trees, that have been propa-
ed from Slips and Layers, begin to unfold a fine
owth of Leaves, they ſhould be removed from the
, or Baſket, into Boxes; and the Ball of Earth that
eres to their Roots ought to be raiſed a little higher
n the Edge of the Box. When your Fig-Trees no
ger produce any large Wood, you muſt either ſur-
round

round them with a new Supply of Earth, or place them in larger Boxes; and if, at the End of twenty Years they ſhould be too much confined in the larger Boxes they will ſtill continue proſperous, if you tranſplan them into the Earth.

Prior. Fig-Trees are ſometimes trained up to th Eſpalier; but they will then have too much Liberty and ſhoot out more Wood than is conſiſtent with thei proper Regulation. They may indeed be eaſily ſupported by Poles, about the Diſtance of a Foot from th Wall; but this little Foreſt of Plants raiſed before Wall that remains uncovered below, is far from bein ornamental to a Garden; and the Winter will frequently be very injurious to the Trees, whatever Precautions may be taken to the contrary.

Count. We generally content ourſelves with Fig-Tree in Boxes, and likewiſe with thoſe that are form'd int Buſhy-Dwarfs. The Tree that grows in the natura Earth is ſecured from the Rigours of Winter by a Covering of Straw: Thoſe in Boxes are preſerved in th Green-Houſe; and they are, at preſent, in the greate Eſteem, becauſe they are capable of being cultivate with more Certainty and Eaſe than any other Claſs; an the Fruit, beſide the Merit of a full Growth, has alſ the Advantage of completing its Maturity the ſooneſt c any.

Chevalier. 'Tis pity this Plant is not ſo beautiful to th Eye as the Orange-Tree.

Count. Its Shape reſults from a Set of particular Principles, which may be all comprehended in a few Word In the firſt place, it is impoſſible to form the Head c this Tree into any exact Regularity.

Prior. The Damage is not very great; for an Air c Eaſe and Unconſtraint has always an agreeable Appearance, even in thoſe Objects that are capable of a curious Adjuſtment.

Count. A Fig-Tree in particular ſhould have a Mie of Freedom. Its Leaves are too large and uncomplian to form an exact Round; it will be ſufficient therefor if it has ſome Similitude to that Figure; and we ar ſatisfied, if it does not ſhoot into a ridiculous Expanſio one ſide, while its Growth is entirely contracted on other.

The Eyes, in the Branches of ſmall Wood, are flat, out little ſwelled, and are very remote from each other. e good Branches have large Eyes whoſe mutual Diſ- ce is very inconſiderable: and theſe ſhould be al- ys preſerved. Hitherto the Proceſs is much the ſame n other Fruit-Trees; but as Figs grow upon the ſtrong- Branches, and never upon thoſe that are ſmall, the ak Branches muſt be cut off, and the ſtrong ones pre- ved, contrary to the Methods practiſed on other Trees. e Figs ſhoot immediately from the large branches hout being preceded by any Flowers; becauſe the it itſelf incloſes its Chives, together with its Powder Seeds, under one common Foldage.

rior. Every Circumſtance in this Tree is very ſin- ar, and varied from the general Order obſervable in er Plants. That Being, who has ſubjected them to uniform Law, can diſpenſe with its Operations never he pleaſes, and his Power is equally productive n he even recedes from the Laws of Fertility. The ns of thoſe Leaves that ſhoot forth, after Midſummer, produce Fig-Buds, or the firſt Figs of the enſuing rn; and the Stalk of each Leaf, that unfolds itſelf he Spring, will bear a Fig that will ripen in Autumn, ne Weather be hot, and the Expoſition favourable; rwiſe it will wither away and not attain to any Maturi- even in the following Year; though it may poſſibly pre- e ſome appearance of Vigour, in the Winter Sea- ſon.

ount. Can you judge, in the manner by which the -Trees grow, how the Tree ought to be pruned?

hevalier. I ſhould think it proper to let the large nches be very long, in order to acquire a greater ntity of Fruit.

ount. That, indeed, would be the effect; but it be much better to invigorate the Tree, nouriſh the od, and raiſe a growth of Figs that will be more va- le for their Beauty than their Number; for which on, the Fig-Tree is kept ſomething low, eſpecially e in Boxes, which cannot derive ſo much Aliment from the Earth, as thoſe that expand their Roots in fu Liberty.

At the return of Spring it will be proper to cut off a the Shoots that riſe from the Stem, and they may be employed as Slips. All the dead Wood muſt likewiſe b lopped off, and the large Branches that are newly ſh forth ſhould be ſhortened, and not permitted to excee two Feet in length. In the Month of *April*, the Ends all the old and new Branches ought to be broken off, th theſe may produce lateral Shoots which will ſupply t Fruit below with more Sap; and at the ſame time a ric er Growth is ſecured for the ſucceeding Year, when a the new Shoots that have yielded Leaves, will likew be productive of Fruit.

The Fig-Tree is a Plant that requires large Refreſ ments of Water; and it is dangerous to confide this pa of its Culture to an indolent Gardener, who will thi himſelf diſcharged from that Care by the leaſt Sprink of Rain; though it is certain that a very copious Show only moiſtens this Plant to a very moderate degree; b cauſe the large Expanſe of its Leaves prevents the H midity from arriving at its Stem. It ought therefore be plentifully watered once a Week at leaſt during t Spring; and this Operation may be facilitated by mea of a Pump, that raiſes Water to the top of a Buildi that there may be a ſufficient quantity of it ready for t Extinction of Fire. Or a leathern Pipe may be fixed the Cock of a Fountain, or the Ajutage of a *Jet d'Ea* and the Water being impelled forward by the Curr behind it, will aſcend without any obſtruction. which means, a ſingle Servant may ſoon diſtribute a ſ ficient quantity of this Fluid to a long Row of Box and even to all the Beds of Herbage in a large Compa ment.

Chevalier. Your Lordſhip has undoubtedly cauſed y Fig-Trees to be diſpoſed around that Baſon, that th may be water'd with as little difficulty as poſſible; bu ſhould be glad to know why they are faſten'd to the f of the *Jet d'Eau* with long Bands of Wollen Liſt.

Count. The Affair is very different from what you in gine. In the middle of that *Hexagon* Baſon, which

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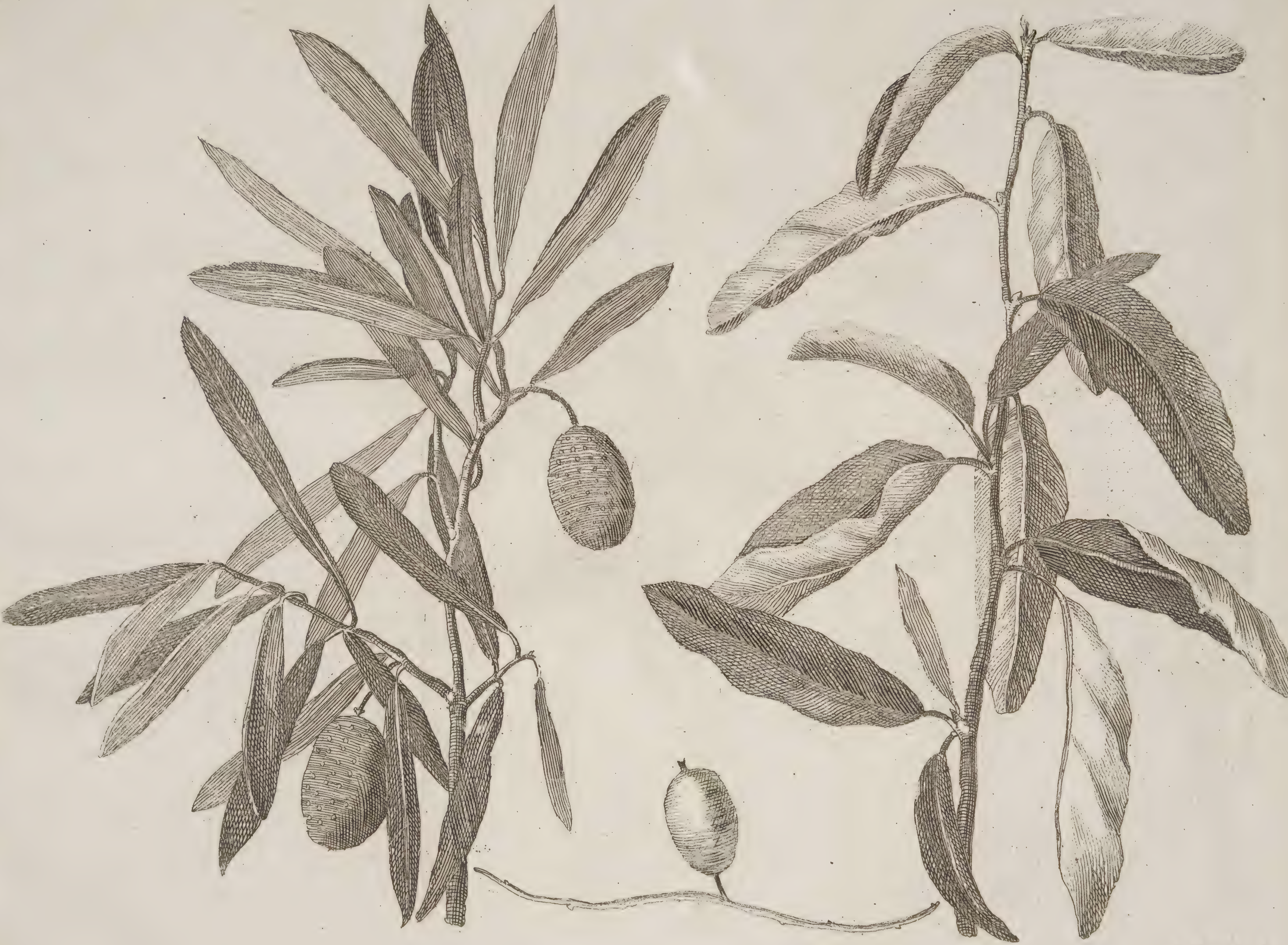

J. Mynde sc.

The Grafted Olive.

The wild Olive & it's Fruit.

n with the Surface of the Earth, you ſee a Pedeſtal · Feet high, ſupporting a round Baſon, that diſrges a Sheet of Water over its Rim. In that upper on I cauſe as many long Pieces of Liſt to be ſteeped, here are Boxes of Fig-Trees round the grand Baſon. e hither end of the Cloth being lower than that which mmerſed in the Water, the Liſt is eaſily filled by the Aid ne Air, which gravitates on the Surface of the Water, cauſes it to glide along the Fibres of the Wool. It then ls in Drops on the Earth, and diffuſes a ſufficient ſhneſs thro' the whole Box, and which may be rebled upon every proper Occaſion.

hevalier. This is ſaving abundance of Labour, at a ll Expence; But are there no other Fruits that your dſhip would recommend to my Care?

The Plantation of OLIVE-TREES.

rior. The Olive-Tree would deſerve our Attention much as all the other Plants we have mention'd, and naps more, could its Fruit be brought to a due Matui in our Provinces.

hevalier. In what Countries, Sir, is it moſt ſucceſs-

rior. It thrives to perfection in the *Southern* Parts of *nce;* but it enriches in a peculiar manner the Can- of *Oneille*, and *Graſſe*, in *Provence*, with an Oil ſe Sweetneſs excels the moſt perfect Growths of *Italy* *Portugal.* Next to this, the Oils of *Arramont*, *Aix*, *Nice*, are in the greateſt Eſtimation. Thoſe that are ght from *Naples*, the *Morea*, *Candy*, and the Iſles of *Archipelago*, are ranked in the third Claſs. The Os likewiſe differ as much as the Oils: Thoſe of *Provence*, ch are eaſily diſtinguiſhed by their Smallneſs and unal-pointed Figure, have a delicacy of Flavour, which es them univerſally preferred to all others.

he Leaves of the Olive-Tree have a near reſemblance thoſe of the Willow, and it is a Plant that may be ly cultivated by thoſe who have any Curioſity to raiſe

it; ſince it demands very little Labour or Attention
It is cuſtomary to plant it in a Box of hot and light Eart
It requires plenty of Water in the Summer Seaſon, a
ſhould have a commodious Shelter from the Winte
Cold.

Chevalier. In what manner, Sir, is the Oil made?

Prior. Olives are uſeful in a double Function. Wh
the Extraction of their Oil is intended, they are bruiſ
under a Mill-ſtone, and reduced to a Paſte: This m
be work'd up with an Intermixture of warm Wat
which diſengages the Oil, and by cauſing it to ſwim u
permoſt, facilitates the manner of acquiring it. It m
be kept for about a Year, after which it degenerates a
grows uſeleſs. Nature, by advancing Wine to Perfecti
in proportion to the Increaſe of its Age, ſeems to inv
us to act with Oeconomy in its Conſumption, leſt it ſho
happen to be abuſed; but in limiting the Goodneſs of
to the Duration of a Year, ſhe compels the Rich to i
part it to their Inferiors, who will always uſe it with M
deration.

When Olives are reſerved for eating it will be nec
ſary to correct their bitter Flavour: In order to whic
they are firſt paſs'd through a † Lixivium of Aſhes a
Lime, and then depoſited in Veſſels of Stone or Woo
with a ſmall quantity of Water, Salt, Coriander, a
Fennel, or ſome other *Aromatic* Plant.

This Fruit, whoſe Juice is tranſported in ſuch a be
ficial manner to all Parts, compenſates the Provin
where it grows for their want of Butter, and other A
commodations afforded by Paſture-Lands, which are
dom ſeen in thoſe Countries, becauſe the Graſs is with
ed by the ſudden Evaporation of the light Soil, which l
too much expoſed to a ſcorching Sun.

Chevalier. We have Tracts of Land, in ſeveral Pa
of the Kingdom beſide *Provence*, that are parched a
render'd uſeleſs by the immoderate Heat that exhau
them: Is it impoſſible to cultivate Olives in ſuch Soils
theſe?

Prior. It may perhaps be ſaid that they will not

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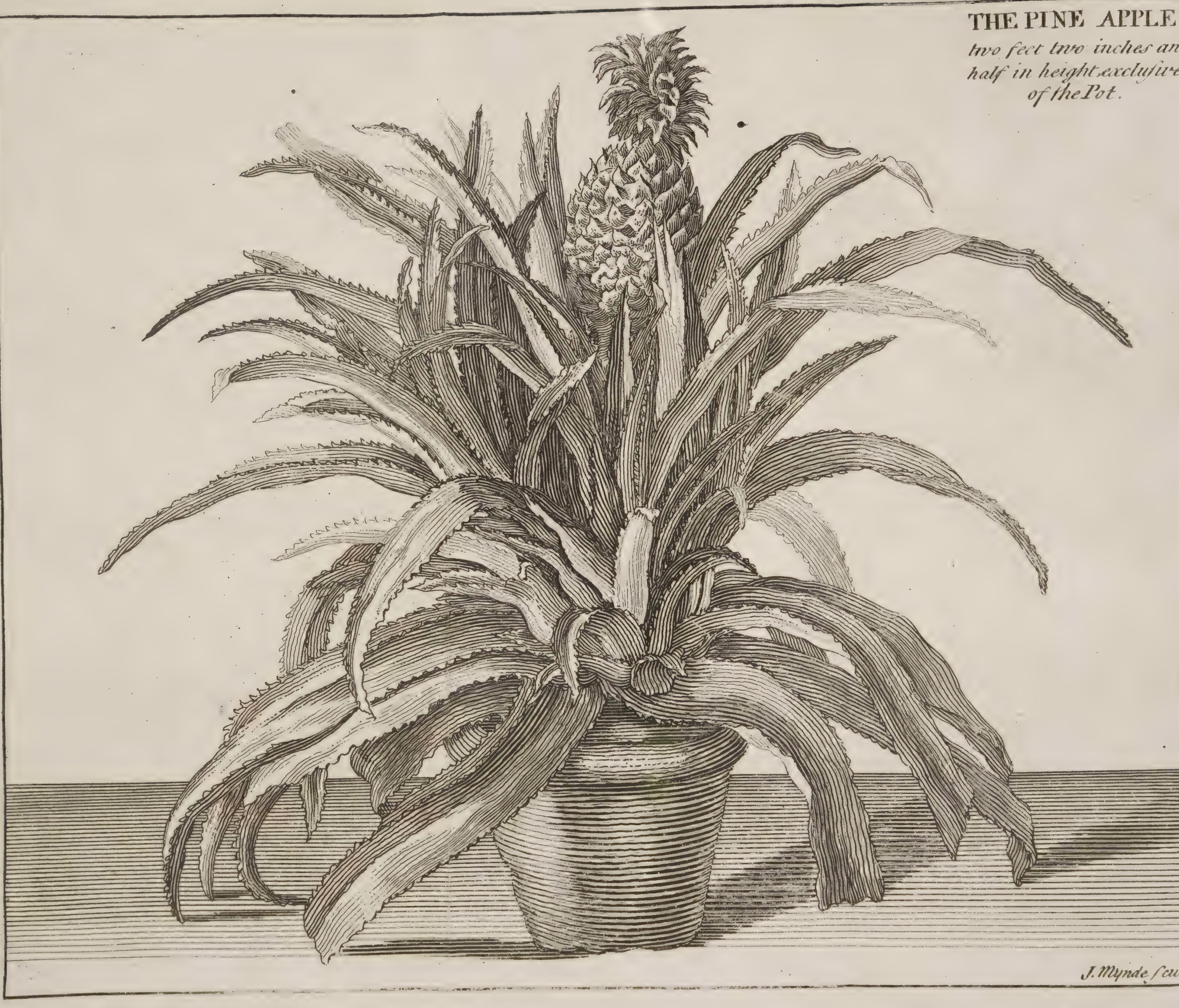
* Non ulla eſt oleis cultura. *Georg.* 2.

† Ly.



THE PINE APPLE

two feet two inches and half in height excluſive of the Pot.

J. Mynde ſculp.

there, becauſe they have never been ſeen in thoſe
. When our Anceſtors, the *Gauls*, paſs'd the *Alps*
joy the delicious Gifts of the Vine, and the Olive-
in their *Italian* Settlements, they had no Con-
n that theſe Plants could ever proſper in *Gallic*
es; and yet they have ſince been tranſplanted thither,
more Succeſs than even attends them in *Italy* itſelf.
s likewiſe a prevailing Opinion, that the *Muſcadine*
e, the Orange and the Fig, could never accompliſh
Maturity among us. It is not very long ſince this
has been diſſipated; and we were then convin-
hat the *China* Orange, the *Muſcadine* Grape, and
ig, were capable of acquiring as exquiſite a Flavour,
s perfect a Ripeneſs, even in the *Northern* Part of
e, as they ever aſſumed in *Champaign*. You may
iſe judge, by another Inſtance, what Expectations
ay entertain from our Experiments, and the Fer-
of our Soil. Some Years ago, the King gave Mon-
le Normand two Suckers of a Pine-Apple, and re-
ended their Cultivation to his Care, though they
almoſt wither'd at that time, and had not any
: The Heart, however, was good, and they hap-
to take. But though the Fruit they produced could
advanced to its proper Maturity, yet two Suckers,
vere preſerved from the Putrifaction and Danger of
hers, produced, in the Year 1733, two Pine-Ap-
whoſe Beauty attracted the Attention of the Curious.
Aſſiduity uſed in their Culture, in conjunction with
urable Autumn, raiſed them to a perfect Maturity.
King himſelf taſted one of them, the 28th of *Decem-*
nd found it excellent; and all thoſe Perſons,
om his Majeſty thought fit to ſend part of theſe
, in order to conſult different Palates, unanimouſly
l that the Pine-Apples were completely ripe, and
a delicate melting Pulp, agreeably quicken'd
ine Acid, and were as richly perfum'd as a Straw-

Inference from this Fact is, that if the Pine-Apple,
ſeem'd to be limited to the *Torrid* Zone, can be
ht to Maturity in the *Northern* Part of *France*;
live-Tree, which proſpers in the Provinces be-
yond

yond the *Loire*, may certainly ſucceed on this ſide of River. Our Climate is favourable to moſt Productio and we need only make proper Trials of its Efficacy, aid it in its Operations.

Count. I really believe the Olive-Tree would thriv our Gardens, as well as the White Mulberry T which now performs Wonders in ſeveral Places that w formerly thought too cold for this Plant, as well as for Silk-Worm.

Prior. We daily pay leſs regard to a Maxim that been extended too far, and which aſſerts that Fruits ar peculiarly adapted to certain Countries, that they never ſucceed in any other Regions: And ſince we h at laſt, diveſted ourſelves of this unreaſonable Prejud by which we had long been impoveriſhed; we thoſe Fruits, with whoſe Names we were almoſt u quainted, ſome Years ago. The Obſervations that h been made on the valuable Productions of different vinces, and on ſuch as each Soil either furniſhes of it or may be render'd capable of producing, by its Ir mixture with other Earths; a due Examination of w Fruits particular Trees afford without Pruning; what kinds other Trees may be taught to bear, by Operation; a ſtrict Attention to the natural Produc each Seaſon, and to thoſe Additions that may be m by the Aſſiſtance of Saſhes, Mats, Conſervatories, hot Beds: In fine, an exact Conformity to the w Proceſs of Nature, aided by all ſorts of Experiments induſtrious Applications, has enabled us, within Compaſs of a few Years, to collect into one Coun all the Advantages which, till then, were diffuſed thro ſeveral Regions; we can now communicate to va Seaſons thoſe Productions that were formerly appro ated to one; and are capable of deriving profit fro Soil that once ſeemed to be the Seat of Sterility; word, we have it in our power to accommodate So with a Circulation of Fruits and Herbs that are as du as the Year itſelf.

Count. This Circulation is the principal Object of dening; but then we are not to fill our Ground wi very particular Species, as is practiſed by ſome Per

V

hat Advantages can redound from a laborious Culture
ſuch Trees as produce but indifferent Fruits? Let us
her devote our Time, and Soil, to thoſe Productions
it are moſt perfect. I intend, my dear Chevalier, to
orm you in our next walk how a Garden may be em-
yed in the moſt beneficial manner; by preſenting you
th a Catalogue of thoſe Species which ought to be ad-
tted, in excluſion to all others; and I ſhall then ac-
aint you with their proper Management, through the
ole Courſe of the Year.

Chevalier. If your Lordſhip is reſolved to confine me
ſuch a ſtrict Oeconomy; I doubt I muſt bid adieu to
ilosophy.

Prior. Not at all, Sir, I aſſure you. True Philoſophy
ways begins with a reaſonable Oeconomy; and it is this
ne which enables us to paſs our Days in Tranquillity,
well as to render good Offices to others, and to con-
ct all our Undertakings with Decency. What Prero-
tive has any Perſon to philoſophize on what paſſes in
Heavens, and to range the whole Syſtem of the
orld, if he is unable to regulate his own Habitation?

FRUITS

DIALOGUE IX.

The COUNT. *The* COUNTESS. *The* CHEVALIER.

Chevalier. NEW Figs in the Month of *Ma* with Grapes of the laſt Yea Growth! Surely this is a very u common Deſert.

Counteſs. You ſee, Sir, we can unite the old Fruits wi the new.

Chevalier. I ſuppoſe the Figs may be owing to t Heat of the Stove and the Dexterity of the Gardene but is the Preſervation of the autumnal Fruits likewiſe t Effect of his Care? I am apt to think they have be managed by ſome other Hand.

Counteſs. This is a Province I have reſerved to m ſelf; and have ſometimes been ſo ſucceſsful as to prefer the *St. Germain* Pear to the Month of *February*; and t *Virgoleuſe* even to *April.*

Coun

Count. New Expedients are daily invented for cauſing greeable Surpriſes, by preſenting us with ſuch Fruits as re not to be expected, according to the Courſe of the eaſon ; and the Imagination can never be too fertil in rniſhing ſuch Expedients as theſe : But the Point from hence we ought to ſet out, in order to ſecure a Supply fine Fruit thro' the whole Courſe of the Year, is a ght Knowledge of the Seaſon in which each particular ruit attains its Maturity, either on the Tree or in the onſervatory ; and a regular Choice of thoſe Species that re proper to be planted in the Kitchen-Garden.

Counteſs. Thoſe that are moſt excellent ought to be rocured for all Seaſons, and one ſhould never take up ith ſuch as are indifferent, except when the others are ot to be acquired.

Chevalier. The Number of excellent Fruits is not xtremely great; and I can eaſily ſet down their Names nd Succeſſions in my Book of Memorandums.

Count. I promiſed to furniſh you with the Particulars.

Counteſs. Let us begin with the Fruits of the preſent Ionth.

Chevalier. I always thought that Flowers were the on- Productions of *May*.

Counteſs. We intend to entertain you with a Collation Strawberries To-morrow.

Early *May*-Fruits.

Chevalier. Does your Ladyſhip mean ch as will be red and tender ?

Counteſs. I do, Sir: And if you are diſpoſed to be in- edulous, I can even cauſe them to ripen in the Month *April.* I aſſure you, we had ſome brought to Table vo Days before we were favoured with your Company.

Chevalier. I ſuppoſe the Stove is inſtrumental in fur- iſhing theſe Novelties.

Count. Not at all ; the young Plants were brought from e Woods in Autumn, and were then tranſplanted into Bed. Care was taken to give them a new Supply of Ieat in *February*, diſpoſing a Lay of freſh Horſe-Dung ound the Bed ; and the reſt has been completed by the un-beams and Glaſs-bells properly managed.

Counteſs. I propoſe within fifteen Days at moſt, to pre- nt you with a Deſert of early *May* Cherries, attended by Strawberries in their full Perfection, and produced the natural Soil. Theſe are part of my Revenues, and yearly receive them myſelf. As to the Manner of the Production, the Count will acquaint you with the Pa ticulars.

Count. In order to raiſe a Growth of Early-Cherrie it will only be neceſſary to train your Trees to the E palier in the beſt Expoſure; and if you are deſirous forward Strawberries in an open Soil, all the Precauti you need obſerve is to take the Plants out of their nati Earth, and place them at the Foot of a Wall ſufficient expoſed to the Sun. The Flowers that bloom laſt Spring are to be retrenched; but thoſe which make t firſt Appearance ſhould be ſtrengthened and aided as mu as poſſible. Theſe are ſoon enlarged, and the Fruits th produce are rendered much finer by this Management.

When the Fruit-Seaſon of theſe Plants is over the ſhould be cut even with the Surface of the Earth, whi will give an additional Vigour to the Roots: Where if the Stems are permitted to continue in their full Growt the Roots will be exhauſted in nouriſhing a Profuſion Shoots, which will bend ſpontaneouſly into the Eart and weaken each other by their immoderate Number.

A Bed of Strawberry-Plants will continue fertil f three Years; but a third Part of them ſhould be annual deſtroyed, in order to repleniſh that Part of the Pl with young Plants from the Woods; and there will a ways be a ſufficient Supply of good Fruit, when th Method is purſued.

Rasberries.
Gooſeberries.

Counteſs. Strawberries and Early-Cherries will accompanied by Raſberries and Gooſ berries in *June*; and common Cherri will be gathered about the Middle of th Month. Theſe will ſoon be ſucceeded b the *Montmorency*-Cherry, and the white and blac Hearts, which are in the greateſt Eſteem.

Cherries, *&c.*

July is the Month for red Fruits, and our Deſe will then be graced with all the Kinds I have alrea mentioned; together with the *Engliſ* Cherry, which is ſo generally valued f its Largeneſs and ſweet Flavour: Th

Blac

ack-Cherry will likewiſe make its Appearance at the me Time; and the Fig-Tree will then afford us ſome roductions to grace the firſt Courſes at our Entertainents. Toward the Middle of the ſame Month we all gather Early-Peaches; the little Peach of *Troyes*; *atalonian* and *Perdrigon* Plums; the earlieſt Apricocks, ad ſeveral excellent Pears, ſuch as the little Muſk, the *lagdalen* and the Early-*Rouſſelet*.

Count. The excellent Flavour of the Muſk-Pear is a ompenſation for its extreme Smallneſs.

Summer-Pears.

his Fruit ſucceeds beſt on an old Tree, in e open Air, and in a dry Soil. The *ouſſelet* is not very common as yet, but deſerves to be ndered ſo, becauſe it is as forward as the Muſk-Pear; and ot only exceeds it in the Delicacy of its Juice, but is kewiſe ſeven or eight Times as large.

Counteſs. The latter End of *July* furniſhes me, if I am ot miſtaken, with the pearly *Mirabelle*; which is a rge Plum whoſe Juice is exceeding ſweet. When all eſe Fruits are properly intermixed, they may be formed to Pyramids and other Imitations of Architecture: The ories and Projections of which may be ornamented with ining Colours; and they are likewiſe capable of being ouded in a very agreeable Manner.

The Month of *Auguſt*, inſtead of beſtowing its Fruits, ems to laviſh them with the utmoſt Prodigality. We e then regaled with large Figs, Cherries of the laſt rowth, Apricocks, and a vaſt Variety of excellent ears.

Count. The firſt of theſe are the Muſk-Robin, which a Pear of a breaking Pulp, and a rich muſky Flavour; e *Cuiſſe-Madame*, whoſe admirable Juice renders it orthy to be ſkreened from the Winds, ſince the leaſt laſt ſhakes it from the Tree: The long ſtalked *Blanuette*, much eſteemed for its vinous Reliſh and its tender leſh: The Skinleſs-Pear, which is always too tranſient; is likewiſe very melting, and full of a perfumed Juice.

Counteſs. I am very fond of the *Caſſolette* and the *Saliati*, which are produced at the ſame Time: Theſe ears are very fit to be preſerved with Sugar, becauſe they have a rich muſky Flavour, and are not intermixed wit any groſs Subſtance.

Count. The laſt Pears of this Month are the Summe *Bon-Chrétien*, and the Royal Muſk Pear; they have breaking Pulp, but are full of a perfumed Juice.

Counteſs. This is likewiſe the Month of fine Plums but I ſhould ſoon bewilder myſelf, ſhould I attempt t reckon up the ſeveral Kinds.

Count. The firſt is the *Monſieur*-Plum, which is th ſame as the Damaſk Violet of *Tours*. The next ar the Damaſk-Violet and the Damaſk-Red. The three be Damaſks are the white, the green and the black, whic eaſily diſcharge the Stones like thoſe already mentioned and exceed them in Flavour.

The little white and red *Mirabelle*; the Apricock Plum; the *Italian*, the Violet and white *Perdrigon* together with the Diaper-Plum, are in great Eſtimatio for their excellent Pulp. The Saint *Catharine* is no wa inferior to any of the preceding Plums, eſpecially whe it has been ſuffered to acquire the Wrinkles and Maturi ty of a proper Age on the Eſpalier; and to which it ca never attain in the open Air, where it is too much ex poſed to injurious Shocks from the Wind.

Counteſs. The Queen *Claudia* is, in my Opinion, th fineſt of any that has yet been mentioned; and it would be a Plum of the utmoſt Perfection, were its Colour a beautiful as its Juice is rich.

Count. Its ever green Skin is ſometimes tinged with a Bloom of Red; and this Operation is performed by clearing away the Leaves which ſhroud it from the Beams o the Sun: But this Method, which ſucceeds very well with Peaches, Apricocks and Pears, ſhould be practiſed with Caution; and I ſuppoſe the Chevalier knows for wha Reaſon.

Chevalier. 'Tis becauſe the Fruit would be injured, by being diveſted of a large Number of its Leaves, which may probably contribute to its Perfection, and they nouriſh it without doubt.

Count. It has been demonſtrated by Experiments, that the Perfection of the Juices of Fruits depends on the Preſervation of their Leaves; ſince the Sap, according to e Opinion which now prevails, never flows into the uit, till it has been circulated thro' the Foliage. It is rtain, that when a Tree has been diveſted of its Leaves, e Fruit, inſtead of attaining its due Maturity, always generates and withers away.

The Month of *Auguſt* preſents us, at its firſt Entrance, ith the *Magdalen*-Peach, one Species of which is called e white, and another the red, and they are both very cellent: They are eaſily diſtinguiſhed by their Leaves, hich are more indented than thoſe of other Peach-rees. We likewiſe gather at the End of this Month the *ignonne*, which is of two Kinds, the ſmall and the rge: The latter is the moſt amiable and perfect of all eaches, and ought to be planted more than all the other ecies.

The *Roſſane*, the Early-*Chevreuſe*, and the *Belle-arde* preſent us with a deluſive Form, and want the erit of the Violet-Peach, which is the moſt vinous ecies, and appears about the Cloſe of *Auguſt* with the *rugnon*, to which it has ſome Reſemblance.

Chevalier. What Difference is there between a Peach, *Brugnon*, and a Pavy?

Count. The *Brugnon* has a ſtriped Skin; but the Peach d the Pavy have a Covering that imitates Velvet or a e Down: The Pavy and the *Brugnon* reſemble each her in their Inaptitude to quit the Stone, which the each always diſcharges and ripens to a greater Per-ction.

The Rouſſelet-Pear.

Counteſs. Let us now proceed to the Month *September*; one of whoſe fineſt Preſents the *Rouſſelet* Pear, as well the ſmall as e large one.

Count. I think I have obſerved that theſe two Species e in Reality one and the ſame Fruit: They entirely rreſpond in their Flavour and Fineneſs; and the Dif-rence in their Sizes manifeſtly reſults from the Qualities the Stock on which they are grafted, or from the il wherein they are reared. It is undoubtedly one of e moſt exquiſite Species of Pears. Nothing can equal e Softneſs of its melting Pulp, the Delicacy of its ice, and the excellent Perfume of its Flavour. It ſucceeds in every Soil, and eſpecially in thoſe that are ligh That which is cultivated at *Rheims* is the moſt perfe of any; and thoſe which are reared in Gardens, a much ſuperior to the Rouſſelet, which is propagated in t open Country.

Chevalier. A Tree that extends its Roots under a immoveable Soil can never enjoy the Benefits of Cu tivation and Rain like other Plants. From whence the does it derive its Juices? For my Part, I ſhould imagi it to be incapable of imbibing any.

Count. It undoubtedly extracts a conſtant Nutrime from the Earth, and eſpecially a Vapour impregnate with volatile Salts, from thoſe Parts of the Soil where th Cavities are deep and ſpacious. We may form a Judg ment of this Fact from the Incruſtations of Salt-Petr which adhere to the Spiracles of Caves, and to the Wal of Subterranean Vaults. The ſmall Particles of Sal which are ſo inſtrumental in exalting the Flavours Fruits, are propelled by a Succeſſion of other Exhala tions. They riſe and float in the Air, where the Tre expands a Profuſion of Leaves adapted to their Recep tion. Theſe Salts likewiſe ſettle on the Tops of Buil ings, from whence they are ſwept by a Flow of Rai and conducted to the Stems of Trees, where they fin through the Cracks in the Ground, and a thouſand Ca nals which are opened by Worms for the Admiſſion c Air and Freſhneſs.

The *Rouſſelet* is either accompanied or ſoon ſucceede by three Sorts of Peaches, that contend with each othe for the Prize of Beauty and Perfection. The firſt is th Admirable; the ſecond the Royal Peach, diverſified fro the other by a little Tumour, which lengthens it in th extreme Part; the third is the Purple or late *Chevreuſe* which reſembles the early *Chevreuſe* in its Form, but ha not ſuch a woolly Subſtance. Its red is of a deepe Glow, and from thence it derives its Name of Purple.

Counteſs. The Tardineſs of its Appearance is not on of the leaſt of its Qualities. It almoſt ſhines alone at th Cloſe of *September*.

Count. If it has any Attendants, it derives conſiderabl Advantages from its Compariſon with thoſe that ripen

wit

ith leſs Facility. Such, for Inſtance, are the *Magdalen-*
avy*; the *Nivette*; the White-*Andilli*; the Admira-
e-Yellow; the Tardy Violet †, and the Pavy of *Pom-*
ne‖. The Month of *September* likewiſe brings ſeveral
luable Plums to Maturity, eſpecially the *September*
amaſk.

Counteſs. When there happens to be a great Scarcity
Peaches, their Place in the Deſert is ſometimes ſup-
ied by thoſe Apples that are called the Red and White-
alville; the latter of which has the more exalted Fla-
our, and is capable of being preſerved till *Eaſter*.

The fine *September* Peaches diſcredit moſt of the Pears
that Seaſon; we muſt however except the Winter
horn-Pear and the *Rouſſelet*, which ſuſtain no Diſhonour
y appearing at the Side of the Pavy-Royal, and the
dmirable.

Count. The *St. Germain* Pear**, and the *Engliſh Beu-*
with an Intermixture of Grapes are introduced to fill
, in ſome Meaſure, the Void between the Peach and the
eure.

Counteſs. The Chevalier may add to the Obſervations
e has already collected, that during the
rſt Days of *September*, it is uſual to colour
ruits by an Art that is eaſily practiſed.
Vhen we have an Inclination, for In-
ance, to heighten the faint Complexion of
ne *St. Germain* and the Royal Winter-Pears, and eſpe-
ially a fine *Bon-Chrétien*, the Leaves that intercept the
ays of the Sun are cleared away, and the Fruit muſt
e moiſtened, by drawing ſeveral Lines over it from
nd to End, with a Pencil dipped in freſh Water. The
un afterwards refines this Water, I know not how, and
hanges it to a very bright and lively Vermilion.

Winter-Pears coloured by Art.

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* So called, becauſe its Leaves are indented like thoſe of the
Magdalen-Peach.

† Or the Marble-Peach.

‖ Or the monſtrous Pavy.

** It is alſo called *L'inconnue de Chêneau*, or *de la Fare*, *i. e.*
he unknown of *La Fare*; it being firſt diſcovered on the Banks
a River called by that Name, in the Pariſh of *St. Germain*.

Count. When the Seaſon proves favourable, the Month of *October* completes the Maturity of the ſecond Growth of Figs, which are ſmaller indeed, but much finer than the firſt; and theſe, perhaps, with Melons are the moſt perfect Productions of the Year.

As to Pears, which this Month affords in great Plenty, I would limit their Culture to five or ſix Species that are melting and delicate. The firſt is the *Beuré* which is diſtinguiſhed, though perhaps improperly, into the Gray, the Red, the Green, and Golden Species. Theſe Diverſities evidently reſult either from the Qualities of the Stem, or the Temperament of the Soil. The other ſorts are, the Long-Green Pear *, the Long-Green *Swiſs* ‡, the Autumn and *Swiſs-Burgamots*, the Dean's, or St. *Michael*'s Pear, and the *Beſidery*; which laſt never proſpers but in the open Air.

Counteſs. All theſe Fruits, and eſpecially the Autumn-*Burgamot*, are very excellent; but they ſuſtain some Diſadvantage by ſucceeding the *Beuré*.

Grapes.

Count. At the End of *Auguſt* we gather ripe Grapes; ſuch as the Royal-*Muſcadine*, whoſe Flavour is exquiſite; the *Auſtrian* Grape, which is equally delicate, and whoſe Leaves are diſtinguiſhable by their Reſemblance to thoſe of Parſley; the White and Violet-Grapes of *Corinth*, the Berries of which Species are compact and ſmall, and have very little Stone. *September* likewiſe ſupplies us with the White, the Violet, and the Red *Frontiniacs*, which are excellent when they have advanced to a complete Degree of Ripeneſs. But *October* is the Month in which theſe Grapes generally acquire their full Perfection, as well as the *Gennetin* and *Malmſey* Grape; together with the Long *Frontiniac*, which only ſucceeds in very hot Soils and favourable Years. In order to promote the Maturity of theſe Grapes, in thoſe Situations where they have not a ſufficient Warmth of un, the Berries, while they are as ſmall as Peas, hould be thinn'd with a Pair of Sciſſars, that thoſe vhich are ſuffer'd to remain may be more effectually ouriſhed. Thick Cluſters are the worſt, both for the able and the Wine-Preſs.

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* It is likewiſe called *Mouille Bouche d'Autonne*, the Autumn Mouth-Water Pear.

‡ This is alſo known by the Name of *Mouille Bouche Panache*, the ſtriped Mouth-Water.

Frontiniac and all White Grapes may be diveſted of ome of their Leaves, and refreſhed with Water in a ot Sun-ſhine. This ſeaſonable Supply of Moiſture ren-ers them ſoft, and tinges them with an Amber Colour ery pleaſing to the View.

Chevalier. There are ſome curious Perſons, who de-oſite Grapes and other Fruits in the early part of their eaſon, and while they are yet tender, in Glaſs-Bottles, here they are properly matured by the Sun, and con-inue uninjured for a long time. But I am apt to think, rapes may be preſerved by Methods ſtill more ſimple han this.

Counteſs. I am acquainted with two that are very ccefsful. The one conſiſts in cutting off long Branches hat ſuſtain ſeveral Cluſters, and fixing them on Hoops, hich ſhould be hung up in ſome Place where all out-ard Air is excluded. The ſureſt Expedient is to hang hem in cloſe Boxes, or dry Caſks, that whenever we pen one of theſe Stores to take out ſome of the Fruit, he reſt may receive no Prejudice.

The other Method, which is ſtill more certain, tho' ndeed it creates more Trouble, is to leave the Grapes n the Eſpalier, and to keep them wrapt up in two lit-e Bags, one of Paper, and the other of wax'd Cloth, uring the whole Winter-Seaſon. The Expence is in-onſiderable, and need not be renewed for ſeveral Years. he Mouth of the wax'd Bag muſt be drawn together omething ſtrait, that the Fruit may ſtill derive ſome ouriſhment from its Stem, and not loſe much of its uice by Evaporation. This Covering likewiſe ſecures from the Ravages of Birds, and the injurious Effects Rains and Hail, and common Froſts; but if the old becomes violent, there ſhould be an additional helter of Straw; by which means we may be certain enjoying *Frontiniac* and other Grapes till after *Ea-er*.

Count. All Stone-Fruits diſappear in the Month of *November*; but the Conſervatory, at that time, refunds its depoſited Fruits, which are gradually prepared to regale us at different Periods of Time.

Counteſs. They ſeem to maintain a kind of mutual Intelligence, and one would be apt to imagine they had enter'd into an Aſſociation, to render us their Services in their ſeveral Succeſſions.

Count. The *Monſieur John* is a Pear of an excellent Flavour, though it be ſomething ſtony. The Vine-Pear has a melting Pulp, and affords an exalted Reliſh. The *Lanſac*, or *Dauphine*-Pear, the Green Sugar-Pear, the Marquis's Pear, and the *Petit-Oin*, or the Winter's Wonder, are all melting Pears, enriched with admirable Juices.

In *December.*

Winter-Pears.

The St. *Germain*'s Pear, which of all the melting Species has alone the Privilege to be exempted from a flaccid Softneſs, ſeems ambitious to perform the Honours of the Table in the Month of *December.*

Counteſs. The *Virgoleuſe*, which unites an engaging Beauty with a perfect Flavour, is thought by ſome to have ſuperior Pretenſions for adorning the Deſert. The *Ambrette*, the Winter-Thorn, and the *Landry*-Wilding, have alſo their Partiſans, and ſeldom make their Appearance with the others, without occaſioning ſome Conteſt for the Precedency; which the Company generally decide, by taſting them one after another, in order to render Juſtice to all the Competitors.

Count. The three laſt Species, together with the Good *Lewis*, are never perfectly ſucceſsful but in the open Air, on old Trees, and in dry Soils; and are intirely inſipid in a cold and humid Earth. The Dry *Martin* continues good for ſeveral Months, and is an excellent Baking-Pear.

In *January.*

The laſt Species of melting Pears, and which renders itſelf the Delight of *January* and *February*, is the *Colmar.*

Counteſs. The *Franc-real* *, the Double Flower, the

Cadillac,

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* It is alſo called *Fin-Or d'Hyver*, i. e. The Golden End of Winter.

adillac, and the Pound-Pear, will grace the Deſert
a very conſiderable Time, and may afterward be
lked.

Count. The Fire inſinuates its Particles into the Tex-
e of Pears that are moſt ſtony, and impregnates them
ith extremely fine and palatable Salts, whoſe Efficacy
imperceptible while the Fruit continues crude.

Let us not forget the Royal Winter-
ar, which ſeldom ripens till *February*, In *February*.
d proves an excellent Fruit when ga-
er'd from an old Tree that grows in the open Air.
affords us a Treaſure at a Seaſon when all the perfect
ecies begin to diſappear; but the *Bon-Chrétien* is ren-
r'd the Reſource of all the Winter, by its Beauty and
e exquiſite Sweetneſs of its Juice. The *Bon-Chrétiens*
Auſch and *Touraine* have a Fineneſs of Grain that is
moſt melting.

Counteſs. When the *Bon-Chrétien* is too breaking and
arſe, we can teach the Fire to correct and render it a
ry agreeable Regale.

The Months of *March* and *April* have
Stock but this Pear, and the fineſt In *March* and
nds of Apples, which continue till *April*.
ter *Eaſter*. Such as the *Calveille*, the
gliſh Golden-Reinette, with the Gray and Red Spice-
pples. The little *Api* ſometimes pleaſes the Eye with
Livelineſs of its Colours, and at other times delights
Palate with the exceeding Delicacy of its Juice.

The Number of good Fruits diminiſhes in proportion
the Advance of Winter: The Liberalities of Nature,
d the Precautions of the Gardener, are at laſt exhauſt-
. But when we ſeem to be impoveriſhed, and deſti-
e of all the Accommodations we can derive from
uit, the Miſtreſs of the Family opens a new Conſer-
tory which ſhe had taken into her Regulation, and
rniſhes the Table anew with moſt of the Fruits we
ve already mentioned. In a word, ſhe in ſome mea-
e revives the Donations of each circling Seaſon.

Some of theſe Fruits are candied, others are pre-
rved in Liquors, and a third ſort is dried in a proper
anner.

When the Quantity of Sugar equals the Fruit Weight, the Confection will retain its Goodneſs th longer; but when the Sugar is only half as heavy as th Fruit, this latter preſerves its natural Flavour in a bett manner, but is ſooner ſubject to Decay: Its Corruptio may however be prevented by a thin Spread of Suga which will afterward conſolidate like Cryſtal round th opening of the Veſſels in which the Fruits are preſerve Or, inſtead of Sugar, they may be thinly covered wit a Jelly of red Gooſeberries. The boiling of the Frui frequently diſengages their natural Juices, and enrich them with a Perfume that was not imparted even b their complete Maturity.

Chevalier. This is very evident in Marmalades of Apr cocks and *Mirabelle* Plums.

Counteſs. Several fine Fruits, and eſpecially the Apr cock, the Peach, and the Queen *Claudia* Plum, whe they have been ſufficiently boiled with half their Weigh of Sugar over a quick Fire, will preſerve their excellen Flavour for a very conſiderable time in Brandy.

The Uſe of moſt Fruits may be prolonged to us, b drying them either on Hurdles in an Oven, or on Tile in the Sun-ſhine; which laſt is by much the preferabl Method. When the Fruits have reſigned all their Humidity, we may ſhake a ſmall Quantity of powder' Sugar over them, and keep them dry in Boxes. Som ſorts of black Damaſk Plums will retain the Bloom an Azure with which they were tinged on the Tree. *Brugnole* Plums, and thoſe of *Tours*, together with the Cherries of *Montmorenci*, and the *Rouſſelet* Pears of *Rheims* may be properly dried without Honey, or Sugar, or an other Ingredient; and the Pulp is more durable tha that which is formed into Confections. Thus may the Generality of Fruits be taught to renew their Appearance in different Figures, and frequently with their natural Flavour, even when their ſtated Seaſon is long paſt.

Count. Theſe admirable Fruits, which would ſoon decay when they have been gather'd from the Tree, acquire, by thoſe confectionary Arts, a Conſiſtence that qualifies them for Tranſportation, and they are then conveyed from one Province to another.

Counteſs. The Merit of dried Fruits is ſtill more ex-
ſive ; they are wafted over Seas to diſtant Lands ;
y are ſerved up to the Tables of Monarchs, and pro-
im in the extreme Parts of the World the Praiſes of
Region which produced them.

ESCULENT

ESCULENT PLANTS and ROOTS

DIALOGUE X.

The PRIOR. *The* CHEVALIER.

Prior. YOU will oblige me, my dear Chevalie
by permitting me to tranſcribe that pa
of your written Collection, which relat
to the Choice of proper Fruits to furniſh out a go
Kitchen-Garden. I have ſeveral Diſorders to rectify i
mine; for my Predeceſſor crowded it with a Number
unneceſſary Plants, and never conſulted any Regulatio
or Succeſſion of thoſe that are good in themſelves. A
thoſe that are of any Value preſent me with their Pro
duce at the ſame Time, by which means I am ſoon le
deſtitute of every Species. What you have ſhewn m
in your Book of Obſervations, is a ſure Expedient f
acquiring the beſt Productions the Soil is capable of a
fording; and it exhibits all that neceſſary and impor
tant Regularity, which the Count has obſerved in th
fine Kitchen-Gardens ſo much eſteem'd by Noblemen
true Taſte ſince the Concluſion of the laſt Peace. W
are indebted to *Lewis* XIV. for the Eſtabliſhment of th
excellent Method.

Chevalier. Should not Monſieur *de la Quintinie* be ra
ther conſider'd as its Author?

Prior. When a private Perſon treats a good Workma
with Generoſity, he only requites him for his Abilities
but when a ſovereign Prince careſſes a great Genius, h
may properly be ſaid to form it, ſince he unfolds it t
View, and animates it to make thoſe happy Effort
whic

hich afterward ſerve as Models to others. The ex-
aordinary Succeſs acquired by Monſieur *de la Quintinie*
as leſs owing to his native Genius, than to his ardent
licitude to pleaſe at once a Monarch of Taſte and the
ſt of Maſters. This Diſpoſition enabled him to make
oſe Diſcoveries in the Art of Gardening, which nei-
er himſelf, nor any other Perſons, were acquainted
ith till then. This Prince therefore has proved a
ore auſpicious Benefactor to Gardens, than any of
oſe who have render'd their Memories dear to Poſte-
y, by their Attention to procure us a Variety of new
uits, during their Expeditions into foreign Lands.

Chevalier. Have we many Species that have been
nſmitted to us in this manner?

Prior. You may read in *Virgil* *, and other Writers,
at the Expeditions of the *Greeks* into *Perſia*, *Armenia*,
d *Media*, have ſupplied *Europe* with the Citron, Apri-
ck, and Peach-Trees. The Wars of the *Romans* in
ntus, under the Enſigns of *Lucullus*, furniſhed that Ge-
ral with an Opportunity of conveying from *Ceraſus* to
me the Cherry-Tree, which was unknown in *Italy* till
en. The Princes who engaged in the Cruſades pre-
nted us, in the twelfth and thirteenth Centuries, with
e Damaſk and St. *Catharine* Plums, together with
veral Species of Grapes, which they had collected in
e diſtant Regions they viſited: But the Beneficence of
wis XIV. in forming Meſſieurs *le Nautre* and *de la*
intinie, has furniſh'd all *France* with maſterly Garden-
; or I may rather ſay, that the Gardens of *Verſailles*
e become the Academy of *Europe*.

The Art of Gardening, by a proper Improvement of
e Energy and Productions of Nature, has ſupplied us
th a Profuſion of fine Fruits, whoſe Duration is equal
that of the Year. To this Art we likewiſe owe ano-
er vegetable Treaſure; which, though it be not
uched with ſuch ſhining Colours, is yet render'd pleaſ-
g by an immenſe Variety, and a Succeſſion of Plants
at are always new and always uſeful. I am ſpeaking
Herbs and Roots, which formerly were not produced
l toward the Month of *May*, and never outlived the

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* Virg. Georg. 2. Plin. Hiſt. Nat. lib. 12. & lib. 15. Sect. 30.
rd.

firſt Returns of Cold. But the judicious Conduct of th Gardener can now prolong them through the whol Courſe of the Year, and cauſe them to flouriſh in ſpit of ſcorching Heats and chilling Froſts.

Chevalier. Is this Branch of Gardening attended wit much Difficulty?

Prior. Its Succeſs depends on ſeveral little Operation which are ſoon attained by Practice, and it would b loſing Time to give you a particular Account of th Rules. You ſufficiently comprehend what is meant b manuring, harrowing, digging, and ſtocking the Earth and have no need of a Dictionary to furniſh you wit the Idea of laying out of Beds of Roots and Herbag ſloping any particular Bed, raking the Earth with a Iron Inſtrument with two Teeth, to clear away the uſeleſs Graſs that impoveriſhes the eſculent Plants; and o opening Paſſages to the Rain, and facilitating prope Supplies of Water for the Refreſhment of the Plantation Every one knows what it is to diſpoſe Glaſs Bells ove Strawberries, Melons, and other Productions that are t be raiſed in Hot-beds; to furniſh a Supply of freſh A to one of thoſe Bells, by raiſing it with a wooden Fork to tread down or break off the leafy part of the Herbage, in order to invigorate the Roots; to check thoſ Growths which riſe too high, by cutting off the Extremities, that the Remainder may be render'd mor ſubſtantial; to clear away all Redundancies from Melons, Cucumbers, Grapes, and other Fruits; to bin Endive and Celery, in order to whiten them; to ſprea Coverings of Straw over Artichokes; to raiſe high Beds and ſink others to a Level with the Earth; and laſtly to afford them due Degrees of Heat, by ſurroundin them with Horſe-Dung.

Chevalier. I underſtand the Signification of all theſ Terms; but they ſeem to comprehend abundance o Labour.

Prior. They contain nothing that ought to diſcourag you, and the Execution of all theſe Particulars may b conſigned to the Gardener's Boy; while we reſerve nobler Cares for your Attention. It will one Day be you Province to direct the Labours of others; they will ren

de

you their Aſſiſtance, and you ſhall charge yourſelf,
ou pleaſe, with the Order and Judgment by which
r Works are to be conducted.

hevalier. Suppoſe our Family ſhould intruſt me with
Management of the Kitchen Garden; in what Man-
would it be proper for me to proceed?

rior. It will then be incumbent on you not to ſuffer
Part of the Garden to remain uſeleſs, nor any Por-
of the Year to be deſtitute of eſculent Plants.
are therefore to acquire a particular Knowledge
he proper Seaſon for planting every Herb and Root;
likewiſe of the Length of Time they ought to con-
e in the Earth; that by knowing when one Species
ld be taken up, you may prepare an immediate Suc-
ion of others.

hevalier. I am ſenſible that every Circumſtance is
lated by the Knowledge you recommend; but in what
nner is it attainable? In my Opinion there are thou-
ls of different Plants in a Kitchen-Garden.

rior. This is ſuch a Branch of Natural Hiſtory and
onomy, as is very important and eaſily acquired. A
tleman is curious to gain a right Idea of the *Mexican*
a, or the *Mango* of *India*. But it is certainly of
e Conſequence to him to be capable of giving ſuch
er Orders as will prevent a Sterility of Aſparagus,
s, or Melons in their due Seaſons; and a Knowledge
his Nature is eaſily attained.

itchen-Garden Plants, excluſive of Fruit Trees, may
iſtributed into ſeven or eight Claſſes. Such as Roots,
dures or culinary Herbs; Salleting, Furniture of
et *, ſtrong Plants, ſweet Herbs, Legumes properly
lled, and Earth-Fruits.

hevalier. What do you mean, Sir, by Legumes pro-
y ſo called?

rior. This Name, in ſtrictneſs, belongs only to ſuch
ductions as Peaſe, Beans, Lentils, *French* Beans and
ines; but Cuſtom has extended it even to Roots, and
Generality of culinary Plants.

The *French*, by Furniture, mean thoſe leſſer Herbs that
e Ingredients of Sallets; ſuch, for Inſtance, as Chervil, Creſ-
&c

Chevalier. If you pleaſe, Sir, we will begin w Roots; and I ſhall be glad to know which are moſt uſe and in what Seaſons of the Year they are planted.

Roots.

Prior. Roots comprehend Turneps, Pa nips, Carrots, Radiſhes, Salſify, Skirre Beet-Radiſhes, and ſome others.

Salſify is of two Sorts, the common and the *Spani* or Scorzonera, whoſe Growth is larger and more eſteem than the common Species. Scorzonera is ſown in Sprin and likewiſe in *Auguſt*. It continues two Years in t Earth, but it is cuſtomary to ſow a Bed of it annua that there may always be a ſufficient Supply. The co mon Salſify is ſown in Spring, and continues no long than the *Lent* Seaſon of the enſuing Year. Theſe Ro ſucceed in a Soil that is ſomething rich, and it ought be extremely ſoft and pliant; otherwiſe the Reſiſtance t Plant receives from a Maſs of Earth that is too compa forces it into a forked Growth, which deprives it of its Merit.

Parſnips, and white, red, and violet Carrots, a ſown during the Month of *April*, in a light and ſan Soil, which ought to have a moderate Intermixture Humidity. It will be neceſſary to hoe them, leſt th ſhould be impoveriſhed by Weeds; and all Redundanc ſhould be thinned, as is practiſed on the Salſify, in or to fortify the Plants. Their Growth may likewiſe be e larged by cutting off all the green Tops, half a Fo above the Surface of the Earth; and if you are deſiro of affording them an additional Improvement, let a hea Cylinder of Wood be rolled over the Bed in the Mon of *September*. The Roots are drawn out of the Ear before the Winter-Seaſon, in order to their Preſervati in the Repoſitory, under a Covering of Sand.

Skirrets are to be ſown and planted very thick, b cauſe they enlarge their Growth but little, and are on kept till *Lent*.

Turneps are ſown in Spring, that we may obtain Growth of them in Summer. They are likewiſe ſow in *Auguſt*, and drawn two Months after. They muſt preſerved in ſome dry Place, where they may be diſpoſ into Heaps, and without any great Precaution, throug

th

whole Winter Seaſon. The little Turneps of *Cham-*
n, are in the greateſt Eſtimation, and never acquire the
e Flavour, when they are ſown in any other Province.
adiſhes require the ſofteſt Soil, and frequent Refreſh-
ts of Water. They are ſown, and afterward rear'd
he Month of *February*, by keeping them covered.
y remain in the Earth no longer than five or ſix
eks, and are then ſowed a ſecond time, between
vs of Lettuce and Endive, in order to obtain a ſupply
nem through the whole Summer-Seaſon. And thus
e ſame Soil capable of producing a double Growth of
e Roots.

eet-Radiſhes are multiplied by Seed; they are ſown
tranſplanted in the Spring, and drawn out of the
h, before the Seaſon of Froſt, to be preſerved under
overing of Sand.

otatoes * are Excreſcencies or Tumours, detached
a the Roots of a very high Plant, that has been
ſmitted to us from *Tompinambo* in *Braſil*. Others de-
e it was originally brought from *Canada*. Theſe
ts are very palatable, when boil'd, and reſemble the
ochoke in taſte.

ed *Trufles*, or Apples of the Earth, are of different
s. Their Subſtance is fleſhy, and vegetates in ſandy
erranean Crevices; but they have neither Stem nor
t.

hevalier. By what means then can they imbibe the
es of the Earth, and acquire Acceſſions of Growth?

rior. They abſorb their Nouriſhment through their
s like Sea-Plants; and when they are advanced more
ſs in magnitude, they grow dry, and are then per-
ated by their little Seeds, which are imperceptible.
ne ſearch for them with great Avidity, and when they
found any by digging into the Earth, they utter
Joy with ſo much Noiſe, as diſcovers their good
une to the Shepherds, who immediately drive them
y with their Crooks, and reſerve this Acquiſition
more delicate Palates.

Iy Obſervations on the verdorous Claſs of Plants, will

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* The *French* call them Taupinambours, or Pears of the Earth.

take up as little room in your Book of *Memorandums,*
my Account of Roots. Verdures or culinary Hen
are Sorrel, Patience, White-Beet, Parſley and ſever
other Species, with which you are ſufficiently acquainte

Sorrel, as well the pointed as the round-leav'd, is pr
pagated from little bright Tufts, or Seeds, which are ſow
from *March* to *September*. A Bed of Sorrel may be c
for ſix Years, provided it be nouriſhed from time to tim
with ſome Inches depth of Compoſt, and the Soil of
Sewer.

Patience is a Species of Sorrel.

Orach is ſowed in Spring, and is a very tranſient Plan
It furniſhes Soops with an Ingredient of a golden Com
plexion; and is likewiſe intermixed with ſome forc
Meats, that are much eſteemed.

White-Beet is ſown in *March*, and afterward tran
planted. It is cut for daily Uſe, and ſhoots out a ſeco
time, like Sorrel. It is likewiſe preſerved, during t
Winter, under a Covering of Dung; and its Stalks w
acquire a perfect Whiteneſs toward the cloſe of the e
ſuing Spring.

Chevalier. For what reaſon, Sir, is this Plant inte
mixed with a Growth of Artichokes? Is it in order
whiten them in the Shade?

Prior. It is rather to employ the Field-Mice, who w
then ſpare the Artichocke, and exerciſe their Teeth
the Stems of Beet, which prove more tender, and a
conſigned to the Avidity of thoſe Animals, without an
reluctance.

Bitter Soops, which, however, are very ſalutar
and frequently preferable to foreign Remedies, are mad
with *Borrage* and *Bugloſs*. The *Alleluja* is more refreſh
ing, and is a Species of Trufles, propagated by ſever
Tufts. Theſe three culinary Plants may be multipli
from Seeds, in any Seaſon we pleaſe.

Parſley, as well the common ſort, as the curl'd an
the *Macedonian*, which is more aromatic than the
ther two Species, is very ſerviceable to us by its Leav
and Roots. It is ſown in Spring, and its Leaves ſho
out a-new, after it has been cut. The *Macedonian* Pa

ſle

y may be whiten'd for Winter Sallets, like Celery,
ich ſeems to be a fourth Species of Parſley.
Spinage is ſown in the Months of *Auguſt* and *Septem-*
, and requires an open Spot of Ground of the beſt kind.
at which is firſt ſowed is fit for uſe at the latter end
Autumn, and continues even in Winter. The other
s, which ought to be carefully covered, are the Manna
Lent.

Cabbages, whoſe Species and Utility are generally
own, are ſown in Spring, and for ſeveral ſucceſſive
nths, in order to furniſh us with a Supply in different
ſons. They are tranſplanted at firſt very thick, like
ing Trees in a Seminary, to prevent a large Plot of
d from being waſted, while their Leaves expand but
e. They are likewiſe tranſplanted a ſecond time,
n they have acquired a competent Vigour, and their
ual Diſtances are proportion'd to their due Spread.
ey are taken out of the Earth before the Winter Sea-
and are hung up by the Roots, in order to their
ervation; or it may be more proper to plunge their
ots in Sand. We may be furniſhed with this Plant moſt
of the Year.

Colliflowers are ſown and preſerved like the common
bage; their beſt Seeds are brought from *Cyprus*:
if we ſow them during the Month of *Auguſt* or *Sep-*
ber, in Trenches that they may be ſhelter'd from in-
ous Weather, and tranſplanted in the Spring, we may
urniſhed before the hot Seaſon, and during the whole
r, with this delicious Plant, which was formerly
ght a great Rarity at the end of Autumn.

Brocoli, or the little Leaves which ſpring anew from
Stems of Cabbages that have been cut, are uſeful in a
iety of Ragoûts that are ſerved up at the beſt Tables.

Let us now proceed to Sallets, which
ays conſtitute an agreeable part of a Sallets.
Regale. Though the uſe of Lettuce,
ive and Celery is greatly diverſified in the Kitchen,
theſe Herbs are the principal Ingredients of Sallets,
are render'd attainable in all Seaſons, by ſowing
n every fifteen Days, and by the Inequality of Vege-
on, in each Species. Lettuces alone refreſh us for the
ſpace

ſpace of ſix Months and more, by their ſucceſſive Growth Shell and Paſſion Lettuces reſiſt the Froſt, eſpecially Care has been taken to diſpoſe them, during the Autum Seaſon, in a good Expoſition, and likewiſe on a ſhelvin Bed. When theſe Precautions have been obſerved, th Plants will begin to cabbage in the Month of *Marc* The little curled Lettuce, and the large one, will ſoo cabbage in a hot Bed, and under a Bell. The Roy Lettuce, the *St. Germain*, and large white Lettuces, th white *Mets*, and eſpecially the *George* Lettuce, cabbag as ſucceſsfully as one can wiſh, even to the hotteſt Sea ſon, when they have been replanted in the natural Earth We ſow for the Summer-Seaſon, the *Bologna* and *Geno* Lettuces, together with thoſe that are white, red, ar green, and all the other Species that ſhoot up with ſom difficulty. We ſometimes bind them that they may cab bage the better. The *Perpignan* and Paſſion-Lettuces ſu ceed even in Autumn. The Winter ſeems emulous t engroſs the reſt, and is proud of thoſe Corps of Herbag which his Envy will not ſuffer the Spring to enjoy.

The *Roman* Lettuce, when it has been properly ſow and bound, is always ready to ſupply the place of othe Lettuces, in the Summer-Seaſon, when the Heat prec pitates their Growth too much.

This Crop is ſucceeded by another of Endive and Ce lery, which continues through the whole Winter. En dive is ſown from *April* to *September*, and is replanted a large, in different Periods of Time; after which it ſhou be bound, in order to whiten it; and when there happen to be no Conſervatory for preſerving it under a Coverin of Sand, it is uſual to place ſeveral of its Plants one a gainſt another, four or five Fingers deep in the Earth and the whole is cover'd with a Surface of dry Dung The Heads however ought to be aired, by removin the Dung in fine Weather; and this Precaution will pre ſerve the Plants from rotting.

Celery.

Celery is ſown in the Spring, an tranſplanted in Lines to ſome depth When it becomes ſtrong, the Earth i heaped up againſt its ſides, as high as the Leaves, whic ought to be cut off. It grows white at the Expiration o

Month, and may be kept in the Conſervatory, where it ntinues to whiten, if the Air be excluded.

Wild Endive.

Wild Endive, which is render'd uſeful by Roots and Leaves, is ſown in *May*, and aiten'd for the Winter-Seaſon; and if the eart be lodged in Earth or Sand, it may be cut, three or ur times.

After this Account of Sallets, it will be proper to acquaint u with their Furniture; which are moderate Intermix- es of ſome particular Herbs. Some of theſe are the Pro- e of all Seaſons, as Pimpernel, for inſtance, and Cher- ; by which latter I mean, as well the common ſort that own every Month, as the Muſk-Chervil, whoſe Growth uninjured by Froſt. The other Claſſes vary according to Seaſons; particularly Green-Purſlain, which is ſown der a Bell, in *February*; Golden-Purſlain, which is ſown a Bed, in the Month of *May*; Garden-Creſſes, which ſown monthly during the Summer Seaſon; Water-Creſ- which are not the Produce of a Kitchen-Garden, but gather'd from the Banks of Rivulets, and running ings; Bucks-horn Plantain, which is cut like Sorrel; rn-Sallet, and Wild-Radiſhes, which may be ſown in the chen-Garden, or gather'd on arable Land, where they ing up ſpontaneouſly every Year.

A greater Moderation will be neceſſary in the uſe of fine riferous Herbs; ſuch as Tarragon, the common as well he Citron-Balm, *Engliſh*-Chives, Dittany, Aniſe, Fennel, m-Gentle, Sweet-Baſil, and Rocket.

Theſe fragrant Herbs uſually form the Borders of the are Compartments, and are aſſociated with Thyme. ſſop, and Sage; Lavender, Marjoram, and Roſemary; rmwood and Camomile; Rue, Violets, and Savory. is laſt may be ranged with Peaſe and Beans, which they l ſerve to ſeaſon, with a mixture of Lettuce.

n order to elude the Severity of ſome Winters, and to ure an agreeable Variety for our Tables, due Prepara- ns are made, at a proper time, for ſerving up crude ets, with ſuch as are pickled. Theſe latter are compoſed *Catalonian*, or other white Onions, Beet, Celery, and Tops of Aſparagus; with ſeveral other Herbs and Fruits kled in Vinegar; ſuch, for inſtance, as ſmall Cucumbers, ne-Parſley, and Monks-hood, which is the unblown

Flowers of *Peruvian*-Creſſes, and very common at preſe *Criſta-marina*, which is gather'd in Places adjacent to t Sea; and Capers, which are not the Fruit, but the Buds the Caper-Buſh; and which, if they be ſuffer'd to conti long on the Plant, will be expanded into Flowers, and p duce Fruit. The Caper-Buſh delights in Ruins, and t Crannies of Walls.

As the Generality of *Legumes* are very inſipid, a m exalted Flavour is imparted to them from ſtrong Plan whoſe Volatile and Poinant Salts may be conſider'd as n tural Seaſonings. All of them have ſome Similitude to t Nature of an Onion, which is the Species moſt in Eſtim tion. The other Claſſes are the Leek, the Scallion *, t Eſchalot, and the Rocambole †. Garlick is ſufficient excite the moſt languid Palate. It is much uſed in t Country, and may properly be called the *Peaſant's-Ale pharmic*.

Chevalier. It proves a real Poiſon to others; and *Hora* who had experienced its ill Effects, in a Ragoût at the Ta of *Mæcenas*, imagined he was infected with all the Poiſ of *Colchos*.

Prior. He had the Satisfaction, however, of loading with thoſe Imprecations, which you undoubtedly ha read ‡.

Chevalier. I have interrupted the Culture of ſtro Plants.

Prior. Garlick is ſown at the Beginning of the Sprin and is afterward tranſplanted, that its Growth may be e larged in a more unconfined Situation. It is drawn out the Ground before the Winter-Seaſon; and may be p ſerved as long as is thought proper, by covering it wi Sand, in the Conſervatory, or diſpoſing the Plants, o againſt another, under a large Heap of dry Dung.

Onions are ſown and tranſplanted in the ſame Mann They are trodden down at the Beginning of *September*, give them an Increaſe of Subſtance, and are preſerved eaps, from all Humidity and chilling Froſts- They may kewiſe be ſown in *September*, and tranſplanted in Spring, furniſh an early Supply.

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* A kind of degenerate Onion, propagated only from Seed.

† A ſort of Wild Garlick, otherwiſe called Spaniſh Garlic which is multiplied both by Cloves and Seed; and this latter is abo the Bigneſs of ordinary Peaſe.

§ Epod. Od. 3.

Real *Legumes* are Beans, Peaſe, and Kidney-Beans, the ecies of all which are greatly diverſified; and they genellly ſucceed beſt in a light and ſandy Soil. Moſt of them quire the Aid of long Sticks for their Support, and a free irculation of Air, between the Rows, in which they are anted, in order to render their Produce more plentiful. It uſual to pinch off part of the Stalk of Beans, in order to engthen That and the Shells. This Expedient likewiſe ſtroys Legions of Vermin that faſten on the upper Part of e Stem, where the Verdure is moſt tender. If we ſow aſe from Month to Month, and even in the Winter-Seaſon, may be accommodated with freſh Crops, throughout the eateſt part of the Year, and without any difficulty, to the nd of *October*. The reſt are dried, to be uſed in Winter.

When the Kitchen-Garden has afforded us this Profuſion Roots, and Herbs, and Pulſe, it compleats its Liberalities ſuch Earth-Fruits as are more eſtimable than all its anedent Productions. Theſe Fruits are Melons, Cucumrs, Squaſhes*, and other Citruls; Aſparagus, Artichokes, d *our Lady's milky dapled Thiſtle* †. But I ſhall not clude, in this Catalogue, the three or four Species of ooſeberries, any more than Raſpberries, or Strawberries, nich have been already ranged among the Claſſes of real uits.

Aſparagus.

Let us begin with Aſparagus, whoſe firſt lture is ſomething long in its Continuance: t if it then requires ſome Degrees of Patience, Bed of theſe Plants will afterwards afford you an ample mpenſation, for fifteen Years, and ſometimes more. We n't wait till a Bed is exhauſted, before we plant another, t are careful to form This in a Spot of Ground, which not, till then, been appropriated to Aſparagus; by which

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A ſmall ſort of Pumpkin lately brought into Requeſt.

This is worth Eſteem, for the young Stalk, about May, being il'd and ſoak'd in Water, to extract the Bitterneſs, either boil'd or , is a very wholeſome Sallet, eaten with Oil, Salt, and Pepper. ortimer's Husbandry, Vol. 2. p. 154.

means the intended Plantation will receive a more copio Supply of the Juices neceſſary to its Nouriſhment.

Chevalier. Since this Plant produces ſuch a fine Increa I ſhall be glad to underſtand the Manner of its Cultivatio and I begin to entertain a Reliſh for practical Philoſophy.

Prior. New Plants may be propagated from the See but the moſt expeditious Method will be to raiſe them fro rooted Plants that are two Years old. Two Rows of theſ adjuſted by ſtrait Lines, ſhould be inſerted in Beds that a three Feet and an half in Breadth; and the Path, by whic they are ſeparated, ought to have a Width of two Fee The Beds, which terminate the Square, are allow'd but ha the Breadth of the others, and are to receive only one Ro of Aſparagus. Along the Extent of theſe Lines, ſever Holes muſt be open'd about fifteen Inches in Diameter, an four in Depth; and the Center of each Hole ſhould be oppoſite to the Point where the Verges of two other Openin are contiguous. In the Middle of each Aperture, a ſma Eminence muſt be left, in order to ſupport a Tuft compoſe of two Plants of young Aſparagus. Theſe the Garden depreſſes with one Hand, while he extends the Roots into circular Spread, with the other. When this Operation compleated, he covers them with Earth, and then treads down, that no Vacuity may be left; and in this manner every Opening to be fill'd. The Beds ſhould be ſunk Foot lower than the Level of the Walks. The Earth tha was dug up, before the Inſertion of the Plants, muſt be lai in a ſlanting Heap on the Path, from whence it ought to b gradually ſcatter'd each Year, with an Intermixture of Dung over the Bed, which will, at laſt, be raiſed as high as th Path. Four Years after this Plantation has been form' you will cut very fine Aſparagus, and the old Plant ma be then return'd, in order to be employ'd in a differen Function.

Chevalier. April ſeems to be the Seaſon for Aſparagus by what means then are we furniſh'd with ſuch as are ver tender, in the Month of *January?*

Prior. They are procured at the Expence of ſom other Beds, which are ſacrificed to promote their Appearance in that early Seaſon. In the Month of *November* all the Earth is ſcooped out of the Paths, which ſeparate th Beds, and the Hollow is then fill'd with freſh Horſe-Dung

a Depth of three Feet, and a Width of about two. This
ıis is raiſed eighteen Inches above the Level of the Soil,
l when the Heat cauſes the firſt Plants of Aſparagus to
oot up, they muſt be cover'd with Bells, thro' which the
ght tinges them with the fineſt Green. Theſe Bells
uld be cover'd with a Surface of dry Dung, during the
oſt; and when any Snow has fallen, it muſt be carried
ay with the Dung, to prevent its chilling the Plants,
l the freſh Dung, which is ſubſtituted in the room of the
ıer, ought to adhere to the Bells, and not to the Aſpara-
; becauſe it will whiten them, inſtead of promoting
ir green Tincture. When the Paths are likewiſe pro-
lly recruited with freſh Dung, and raiſed to the Height
y loſt by the diſſipation of the former, we may be cer-
n of a Growth of green Aſparagus in *January*; and it
l continue for a Month, or ſix Weeks in each Bed, and
l be likewiſe renew'd, by proper Renovations of Heat,
ſome other Plantation attains its natural Maturity, at
Return of Spring. The Beds, that have been render'd
ductive by this artificial Heat, will require four Years for
Recovery of their original Temperament, and will then
qualified for a ſecond and laſt Operation.

Artichokes,

The Culture of Artichokes is attended with
Difficulty. The whole conſiſts in lodging
m in an excellent Soil, enrich'd as much
oſſible, and in which the Shoots that have been detached
m the ſtrongeſt Plants, with a few of their Roots, muſt be
erted Chequerwiſe, and at the diſtance of three Feet or
re, from one another, if the Soil be ſtrong, that they
y have ſufficient room to expand their large Foliage; they
uld likewiſe be ſhelter'd from Froſts, by forming the
rth round their ſhorten'd Leaves, or by covering the whole
h long Dung ſufficiently dry. The beſt Shoots are
ite, in the Part where they adhere to the Roots; thoſe of
noderate Goodneſs are form'd into a Nurſery, to be
nſplanted, as Occaſion may require, into the Places of
h as die away.

When the Stocks are ſtrengthen'd, and checkt in their
umnal Growth, they will yield Fruit in the Spring; and
ſe, which are planted in this Seaſon, will be productive
Autumn. When the Stock, which begins to unfold its
uit in the Spring, is cut low, it will ſhoot forth new

Heads in *September*. Their Culture muſt be regulated by theſe Obſervations, in order to ſecure two Growths o Fruit.

Chevalier. As the ſame Plant is capable of ſuch a doubl Fertility, we need only ſuffer one Part of it to ſhoot up in Spring, and check the other, which we intend to reſerv for the Autumn Seaſon.

Prior. This Precaution may be proper, when there i only one Bed of theſe Plants. The Artichokes, of the ſecon Growth, and eſpecially thoſe that are Purple-colour'd, being diveſted of their Leaves, and ſtrung like a Row o Beads, with a ſlip of Paper between each, may be preſerved the whole Winter, in a dry Place, in order to be uſed, a an Ingredient with Muſhrooms, in Ragoûts, and Works o Paſtry.

Chevalier. How long will a good Plant laſt?

Prior. It generally decays at the End of four Years Part of it, however, may be annually renew'd, by which means the diſcontinuance of its Fruitfulneſs is prevented, and even that Part of it, which we deſtroy, has its particular Uſe. We collect the Leaves of thoſe Artichokes that are to be ſucceeded by others; we then bind and cover them with Straw, which ought to exclude the Air from every Part but the Top. They will then whiten like *Spaniſh* Cardons, whoſe Culture correſponds very much with That of Artichokes. This String of Leaves may be preſerved the whole Winter, in the Sand of the Conſervatory, and they will then be prefectly white, and loſe all their bitter Flavour.

Chevalier. Let us now proceed to the Culture of Melons.

Prior. You forget the Cucumber, as well as the Citrul, and Pompion; but we ought not to diſregard them. They are uſeful in Soops and Ragoûts, and furniſh Numbers of People with Bread and medicinal Remedies. Their Cultivation would be entirely agreeable to That of the Melon, were they form'd with the ſame Precaution.

The Culture of Melons.

The Melon is one of the moſt perfect Productions of the Kitchen-Garden, and one of the moſt delicious Refreſhments that Nature, amidſt her conſtant Attention to our Wants, affords us in the Seaſon of violent Heat. In order to raiſe it to as much Perfection as we deſire, it will be neceſſary to

chuſe

ſe an Expoſure to the *South*, and a commodious Shelter, ich ought to be ſecured againſt injurious Winds, by ts properly diſpoſed. The Beds ſhould be raiſed within a t of one another, that they may be heated more effectually, filling the Interval between them with new Dung, which ht to be recruited from time to time. Theſe Beds muſt be er'd with a Surface of excellent Mould, eight or nine hes in depth, and intermix'd with freſh Earth, together h Aſhes and the Husks of Grapes that have been preſs'd. e Melons are ſown in *February*, after the Seeds have been p'd, ſeven or eight Hours, in Water, or Wine ſweeten'd h Sugar. The Seeds are ſown, by ſetting four in each the Holes that are open'd along the Line, and which ht to be at the mutual Diſtance of two Fingers breadth. all Salleting may be likewiſe ſown between the ſeveral es.

When the young Melons have ſhot forth a few Leaves, y ought to be tranſplanted into another Bed, and five or of them ſhould be placed under each Bell. Theſe muſt cover'd with Straw, to preſerve the Vines from Froſt, as ll as from ſultry Winds, which would infallibly ſcorch m. If the Bed ſhould prove too hot, it will be neceſſary thruſt a Pole into its Earth, at proper Intervals of Diſtance, t a ſufficient Number of Vents may be open'd, for the aporation of all immoderate Heat. When the Vines ve attain'd a good Degree of Vigour, they ſhould be taken t of this Nurſery, and tranſplanted at leiſure, with their hering Earth, into a third Bed, and at the Diſtance of o Feet from one another. All luxuriant Shoots ſhould be ench'd in order to invigorate the reſt of the Plant; but Improvement is rather obſtructed than promoted, by the judicious Practice of depriving it of the two ſeminal aves, during its firſt Growth; and afterwards of the Male-owers, which are improperly call'd falſe Flowers, ſince e Plant has not receiv'd theſe Appendages in vain *. You e ſenſible, Sir, that they render it very important Services, the Completion of which they wither of themſelves, ithout making it neceſſary for Man to aid the Operations Nature, and to reform her, as tho' ſhe had err'd in her oceſs.

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* See Dialogue XV. of the firſt Vol.

Chevalier. But don't we act as if we thought it neceſſar to rectify her Conduct, when we thin the Fruits on a Tree and clear away whatever is ſuperfluous?

Prior. That Proceeding is not to be conſider'd as any Reformation of her Works. Man has an undoubted Power t form his Choice; and if he prefers a ſmall Quantity of very amiable Fruits to a Profuſion of ſuch as are not altogether ſ alluring, he may ſecure a large Share of Nouriſhment t ſome, by retrenching the Growth of others, in a very regular manner, and without the Implication of any deficiency in Nature. This Method is properly obſerved in the Cultivation of Melons, and when there is a Certainty of acquiring two or three, that are excellent on one Stem; all the others may be ſupreſs'd, in order to embelliſh thoſe that are ſelected from the whole Growth.

When the Nights happen to be mild and favourable, the Bells ſhould be removed, that the Fruit may be forwarded by a free Circulation of Air, and frequent Refreſhments of Water. When the Melons have attain'd the Size of a large Orange, it will be ſufficient if they are water'd once in three Days; and when they have at laſt acquired their due Dimenſions, all Waterings may be entirely diſcontinued: Dryneſs itſelf being then proper to give them a more ſweet and vinous Flavour, than they would receive from the Sap, were it diluted with a large Quantity of Water.

Chevalier. What a ſurprizing Variety of uſeful Fruits and Plants do we derive from an inconſiderable Spot of Earth!

Prior. I am not ſo much aſtoniſh'd at the rich Abundance of theſe Productions, tho' even This has the Air of a Prodigy, as I am at the Wiſdom with which they are all diſtributed, in Proportion to the Neceſſities that are peculiar to the various Seaſons and Climates. When the Earth is at reſt in the Winter Months, and ſuſpends its Fertility, in order to be re-impregnated with a new Supply of Juices, we enjoy an ample Proviſion of ſuch Fruits and Herbs as are ſubſtantial, and capable of a long Duration. The Earth, in the Summer-Seaſon, daily diverſifies its Liberalities, and ſeems attentive to preſent us with ſuch refreſhing Fruits, as are proportion'd to the Fervours of the Solar Heat. To this Claſs we may refer Stone-Fruits, Melons, Figs, Peaches, and melting Pears. The Fruits are likewiſe as exactly

adapted

apted to the Climates, as they are to the Seaſons. When
advance towards thoſe Regions where the Sun's daily Re-
lutions are vertical to the Inhabitants, we conſtantly meet
th Fruits that are not only melting, like the Melon, but
ewiſe acid, and repleniſh'd with Juice of an icy Cool-
ſs, qualified to allay the immoderate Rarefaction of their
ood. Such, for inſtance, are Lemons, and Citrons;
anges, and Pine-Apples. When I return, from the
rrid Zone, towards our Climate, I begin to diſcover the
ne, and become ſenſible that it appears in thoſe Parts of
e Earth, where it is capable of acquiring a ſufficient Ma-
ity; in conſequence of which, the Inhabitants of the
mperate Zone, and the *Northern* People, whoſe Blood is
ndenſed by the Cold, are accommodated with a ſpirituous
quor, capable of counterpoiſing the groſs Weight of Air
at gravitates upon them.

Chevalier. But would not this Liberality of Nature
entitled to higher Strains of Gratitude from us, if it
orded all ſorts of Fruits to every Region, and every
aſon?

Prior. The great Author of Nature is always liberal to
Creatures; but he acts with OEconomy in the Diſpen-
ion of his Gifts. If his Bounties had no Limits nor Re-
lation, they would ſoon be productive of the greateſt
iſorders; whereas his OEconomy is the Source of innu-
erable Advantages to Society. This makes it neceſſary
r Man to be in conſtant Exerciſe; and he is guarded from
Multitude of Vices, by not being permitted to indulge
mſelf in Indolence and Inactivity. He not only finds him-
f neceſſitated to labour for his Support, but is made ſen-
ble that the Fruits of the Earth are diſtributed in ſuch a
anner, as obliges him to exert all the Vertues and Talents
has received, that he may acquire a Participation of
oſe Bleſſings; the Refuſal of which to one Country,
hile they have been accorded to another, introduces a
rain of urgent Neceſſities, ardent Deſires, and induſtrious
fforts. The Accommodations, that are proper and peculiar
each Province, place the ſeveral Inhabitants in a mutual
ependance on each other. Their Wants are the ſocial
nds that unite them, and they create a kind of Proximity
etween the moſt diſtant Regions, by the means of Navi-
ation, and a reciprocal Exchange of their reſpective Pro-

ductions. Agriculture and Commerce, which are the tw Maſter Springs that impart Motion to Society, afford Mankind an Opportunity of exerting their Prudence, in a righ Judgment of mercantile Commodities and Manufacture and the proper Seaſons for their advantageous Sale; an likewiſe preſent them with a Variety of Conjunctures, i which they may diſplay their Patience, in a Series of Labour, and their Fidelity, in an Intercourſe of Traffic, a well as their OEconomy, in the uſe of thoſe Things, whic are not always ſo attainable as they may be inclin'd to wiſh

The ſame View is evident in the Inequality of Seaſons Man, in ſome particular Months of the Year, muſt exert a the Vigour he poſſeſſes. He is oblig'd to employ himſelf i Tillage and Planting, in Sowing and Harrowing, in Replanting, Gathering and Selling; and is frequently charge with moſt of theſe Occupations at the ſame Time. In another Seaſon, he muſt have Recourſe to a Number of Precautions; he gathers in whatever he has been able to ſecur from the Rigour of Winds, and the Inclemency of a ba Seaſon. He ſtores up, he arranges; he preſerves the Produce of his Land; and at his Leiſure, makes the neceſſary Preparations for the enſuing Year. This moderate Exerciſe which, to him, has the Effect of Repoſe, enables him t reſume more active Labours, in the returning Spring.

Thus has the Deity been pleaſed to honour Man, and t habituate him, if poſſible, to his providential Operations He awakens and allures him to Induſtry, by conſigning t him the Productions he has cultivated, as well as thoſe which he is ſedulous to acquire from other Quarters; and by reducing him to the Neceſſity of becoming deſtitute o many Enjoyments, when he neglects to procure them; o of ſeeing them degenerate, when he ſuffers himſelf to be remiſs in their Cultivation.

HUSBANDRY.

DIALOGUE XI.

The PRIOR. *The* CHEVALIER.

ior. SINCE we are to be alone for a few Days, we may lengthen our Walks as much as we pleaſe, without incommoding any Perſon what-
er.

Chevalier. Let us take a View of the Country to day.

Prior. This Path leads us to a rural Scene of arable Lands, ere you will ſee a Garden plan'd out in a new Taſte.

Chevalier. I am perſuaded, Sir, that it pleaſes you, cauſe an Air of perfect Simplicity reigns thro' all the oſpect.

Prior. As plain and undiverſified as this Culture appears, has coſt more Labour than the fineſt Parterre.

Chevalier. I think the Husbandmen, in that Field, make t a ſlow advance with their ſix Horſes. Do but obſerve, r, what vaſt Clods they have to turn; can Seed be ſown ſuch Maſſes of Earth?

Prior. They defer that Part of their Husbandry till the onth of *September*; and the Land muſt firſt be plow'd new.

Chevalier. The Labours of theſe poor People are very tiguing; and I really pity their Condition.

Prior. You have reaſon to be affected at their laborious Life; but we are Objects of greater Compaſſion than they, when-ever we are unimploy'd. They are only acting in their proper Order.

Chevalier. I grant it, Sir; but there is ſomething in that Order, which aſtoniſhes and perplexes me. When I cultivate a Flower, I am only engaged in a pleaſing Amuſement; but when Corn is to be raiſed, the Fatigue is exceſſive. Would not the contrary of all This have been much more reaſonable? I appeal, Sir, to your own Judgment in this particular. Let it be a difficult Employment to propagate a Bloom of Violets and Jonquils; thoſe, who are willing to ſubmit to the Fatigue, may raiſe theſe Flowers if they pleaſe; but I ſhould think Bread ought to be procured without any Toil.

Prior. Our Fondneſs for a Life of Eaſe, naturally inclines us to think in that Manner; but if this Eaſe be the very Circumſtance, which the Author of Nature intended to baniſh, can you imagine that you have any juſt Cauſe to complain? We are the Workmanſhip of his Hands, and he has regulated our State of Being, agreeably ~~to his~~ own Will. Let us, therefore, be attentive to the Wiſdom of his Ordinations. Flowers and Fruits, the Pleaſures and neceſſary Accommodations of Life, are all granted to Labour, and refuſed to Indolence. But there is the utmoſt difference between the Labours that furniſh Man with ſuch Enjoyments as only miniſter to his Delight, and thoſe that ſupply him with his Bread. The firſt are entirely free, and ſeldom attended with Toil; the ſecond are indiſpenſable and fatiguing. Providence was inclined to gratify Mankind with Flowers, and a ſufficient quantity of fine Fruits, upon eaſy Terms; and the principal Merit of theſe Benefactions conſiſts in the pleaſing Impreſſions they communicate to their Poſſeſſors. The graceful Air of the Gift would have been diminiſh'd, in ſome meaſure, had it only been attainable by Toil, and Mankind would naturally diſregard Satisfactions ſo little neceſſary, were indefatigable Labour the only means of acquiring them. The Cultivation, therefore, of Flowers, and even of moſt Fruits, is only an amuſing Employment to Man, and the Exerciſe of an elegant and ingenious Curioſity, which requires nothing more than the Exertion of a moderate Induſtry; which, inſtead of proving a Fatigue, is rather a Recreation to him, after his daily Labours, and is a Work that entirely reſults from his own Choice.

The

he Circumſtances are all different with reſpect to Herbs Roots, that are Part of his Aliment, and Bread that ſtitutes his chief Support. He is not left in the ſame e of Indifference, in regard to theſe Particulars; and as are render'd abſolutely neceſſary to his Welfare, they to be acquired by a Series of real Labours, daily Aſſidui- and the copious Sweat of his Brows. In a word, vidence has render'd theſe Toils as neceſſary to Man, ae Bread he eats, and altogether as intereſting as Life f.

The Fecundity of the Earth.

ut as painful as this Labour may prove, far from overwhelming him with its gue. The Earth, which requires the of his Hand, animates him to Induſtry, its faithful Compenſation of his Cares. Whatever it ows of the Husbandman, it punctually repays him, and ſuch an Increaſe as almoſt exceeds Belief. It multi- the Seed it receives, in proportion to his Diligence in Cultivation; and is not ſubject to thoſe impairing Decays, are often occaſion'd by a length of Years. It annually mes the Graces and Vigour of a lively Youth, thro' a eſſion of many Centuries; and when its pregnant mb has teem'd with the moſt fertile Harveſt, the Repoſe ſingle Year, or even of a Winter, is ſufficient for the uration of all its Loſſes.

hevalier. I confeſs my Miſtake, and am now convinced, Neceſſity is the propereſt Motive to incite Mankind to iſtry. But is the Earth, Sir, ſo fertile as you are pleaſed repreſent it? I think, at leaſt, there are ſeveral Soils ab- ely incapable of producing Corn.

The Variety of Soils, relative to That of the Seed.

rior. All ſorts of Soils are not qualified for the Production l ſorts of Seed. Some are ſo light and y, that all the Juices, which have been ſited in them by the Air, are evaporated ſhort Time. Corn therefore, which re- es a ſtrong Nouriſhment, would be in- ble of ſubſiſting in ſuch a Situation. On other hand, there are Soils ſo impliant and clayey, that are almoſt impenetrable to every kind of Seed. And , there are others that preſerve a Mediocrity, more ſs juſt, between thoſe two Qualities, and are capable of different Productions, in proportion to their correſpondin either with the Nature of Sand, or with That of Clay.

This Diverſity of Soils is the Effect of a wiſe Deſign and is evidently adapted to the Variety of Seeds; ſome o which require a light, and others a groſs Earth; while third Claſs delights in a Soil of an intermediate Nature.

Tho' Corn is intended, by the Deity, to be our chie Support, we are not deſtitute of Variety, in that kind o Food, ſince he has multiplied it into ſeveral Species; ſuc as Wheat, Rye, and Barley; Millet, and Rice; Oats Mayz, and Lentils; Peas, and a number of other Kinds Each particular Species of Grain has its Uſefulneſs an Propriety, of which Man is always the ultimate End. Som are intended for his own Nouriſhment, others for the Subſiſtence of the Beaſts that ſerve him, or to fatten thoſe whoſe Fleſh is part of his Food. Some Species of Grai furniſh him with Liquors; the moſt common and nutrimental of which is Beer. This imitates the ſpirituo Quality of Wine, and ſupplies the Want of it, in tho Years when the Vine has been deficient; and in tho Countries that are not favourable to its Growth.

Wheat, which is the ſtrongeſt Nouriſhment and Suppor of Man, ſeldom ſucceeds but in ſuch Soils as are hot c vigorous, or, at leaſt, marſhy. Rice, which is likewiſe very ſubſtantial Food, delights in a moiſt and fat Lan Rye proſpers in a moderate Soil, and is ſometimes contente with the lighteſt. Barley, Oats, Buck-Wheat, and Mille thrive in a ſandy Ground, and will likewiſe grow in th beſt Soils, when they have been well pulverized.

Rice acquires its greateſt Perfection in *Aſia*, where it the uſual Food of the Inhabitants. There are likewiſe ſom Soils in *Europe*, where it is cultivated with ſucceſs, as i *Piedmont* and *Spain*. Wheat and Rye are the Support of th *Weſtern* Nations, but their Uſe has been communicated ſeveral Provinces in *America*, where they prove ver proſperous. *Mayz*, or *Turky* Corn, was originally th Food of the *Americans*; but is now cultivated in ſever Parts of *Aſia*, and in our Provinces of *Breſſe*, *Burgundy*, an the *Franche Comté*.

The Variety of Soils facilitates the Progreſs of all ſorts Grain, and our Accommodations are multiplied by th Diverſity of theſe. A Grain, which ſerves for Food in on

Country

untry, is frequently employ'd as a ſalutary Remedy in ther. When any unforeſeen Accident has deprived us of Corn that was ſown before the Winter-Seaſon; ſome er Species of Grain, which we ſet in the Month of *rch*, is ſubſtituted in its ſtead. A Caſualty of this na- happen'd in the Year 1709; but a Neighbourhood of erent Soils affords the Inhabitants of moſt Countries an ortunity of regulating the Choice or Intermixture of the ain they ſelect for their Food, agreeably to their Taſte Circumſtances. In conſequence, therefore, of the wiſe portion, which Providence has eſtabliſh'd between the ture of Lands, and the Diverſity of Grain; every Soil apable of ſome Fertility; every material Want is relieva- by a timely Supply, and every Temperament of Earth y be render'd ſatisfactory to the reſpective Inhabitants.

hevalier. But by what means, Sir, can even the richeſt moſt compact Soils be render'd fertile, without any In- miſſion, and from whence do they derive the Subſtance thoſe Harveſts, which are annually reap'd?

The Sources of the Earth's Fecundity.

rior. The Aid of Heaven, and the operation of Man, are neceſſary to form d Soils, and continue their Fertility. ead of receiving from the Air thoſe chi- ical Influences, which were formerly ſup- ed to deſcend from the Moon and Stars; they derive n it thoſe ſubſtantial Emanations, which are compoſed of ter, and Oil; Salts, Air, and Fire; by whoſe Miniſtra- , the various Soils are really augmented, and work'd Action, while Man's Province is to furniſh their Culture Manure.

he Effects of Culture frequently open the Surface of a d, and facilitate the Influx and Diſtribution of the ciples of Vegetation; and yet the Multitude of Seeds imbibe them, and the Evaporation, which is propor- 'd to the porous Qualities of the Soil, would ſoon exhauſt all its Fertility, if it were not recruited with a Manure ble of ſupplying it with a new Subſtance, and a freſh w of Juices.

trong Soils require much Cultivation, and are ſatisfied n a light Manure; but Lands, that are thin, demand a g Manure, and a light Culture.

As ſtrong Soils are naturally compact, and have no many Vacuities between their conſtituent Parts; and a their Surface is frequently harden'd like an Incruſtation their Earth continues in a State of Chilneſs, Intractability and Inaction, and they remain unſuſceptible of the Sun Influence, and the Impreſſion of the Atmoſphere, till the have been meliorated, by Husbandry, to a conſiderabl Depth, and are entirely reduced to a fine Powder, whoſ Parts are eaſily ſeparated.

Lean Soils, on the contrary, being all incompact, an without a ſufficiency of Depth, their Sterility would b increaſed, by being open'd too much, and by the Inverſio of their lower Earth, to the Surface. It will be moſt prope therefore, to afford them but a ſuperficial Culture. Th Diverſity of Soils has occaſion'd a Difference in the Plough that are appropriated to them.

Chevalier. I thought they had been all form'd by th ſame Model.

The Plough.

Prior. Let us go and take a near View o That, which appears at the farther End o the Field.——This you ſee is ſtrong, an arm'd, firſt, with a large Coulter, which cuts the Earth and diſpoſes it to ſuſtain a more ſpacious Opening; ſecondly with a large Share, or triangular Iron, with a pointed Extremity, and two flat Sides, for the more commodious Enlargement of the Furrow, and to break up the Soil, as follows the Track of the Coulter; thirdly, with a larg Earth-Board, whoſe Situation being always towards th Furrow that is already traced out, throws off, and inver on the ſide of it, the greateſt part of the Earth of the ne Furrow, which is open'd next. This heavy Plough reſerved for ſtrong and deep Soils, over which it is draw by four, and ſometimes by eight or ten Horſes, or as man Oxen. There is another ſort of Plough, much lighter an leſs than This, and which operates ſufficiently, with ſhort and narrow Share. When only two Horſes work th Plough, it will throw up a thin Soil as much as is neceſſary because the Husbandmen are cautious of opening it to conſiderable Depth, leſt either the nutrimental Moiſtu ſhould evaporate, or a worſe Vein of Earth than Tha which is furrow'd, ſhould be raiſed to the Surface.

Chevalier. The Quarter where we walk at preſent is
er'd with the fineſt Verdure; but I muſt deſire you,
to inform me, why that diſtant Spot remains un-
ivated.

rior. Arable Lands are generally ranged into three
iſions, which are almoſt equal. One of theſe is ſown,
ore the Winter Seaſon, with Wheat and Rye; or elſe
h Meſlin, which is a Mixture of both. The ſecond
iſion muſt be allow'd a Winter's Fallow, and may be
n, in the Spring, with the ſmaller Grain; as Oats, and
ley; Lupines, Lentiles, and ſome other kinds, which
call'd *March*, becauſe they are ſown in that Month, or
er in *April*. The third Diviſion is ſuffer'd to lie fallow,
is not altogether inactive, during that ſeeming Repoſe;
beſide ſome Branches of Huſbandry that afford it a pro-
Exerciſe, it is continually receiving fertile Supplies. It
uires a Richneſs from ſoft deſcending Snows; it is
ſten'd by genial Dews and Rains; and even the Winds
prolific Salts and Juices into its Boſom. It treaſures
heſe Gifts for the enſuing Year; and its Inactivity, in-
l of being a Relaxation from preceding Toils, is a Series
reparatives, and an Acquiſition of Materials for new
uctions.

hevalier. Bread is Part of my daily Diet; and yet I
rely acknowledge, that I have but a confuſed Idea of
Methods, by which Corn is raiſed. Numbers of other
ons, by being confined, from their Infancy, to the
ls of *Paris*, like my ſelf, have only obtain'd a tranſient
w of theſe Things, and never beheld them in their re-
r Succeſſion. It would, therefore, be ſome Satisfaction
e, to have a right Knowledge of the orderly Culture and
reſs of Corn.

The Order of Tillage.

rior. Let us begin with Tillage. There
three Seaſons, wherein this Branch of
andry is abſolutely neceſſary for Wheat
Barley. The firſt is perform'd in Au-
n, on thoſe Lands that have produced a Harveſt of the
ch Grain. This Operation, inſtead of opening the
n to any conſiderable Depth, only prepares it in a pro-
nanner, and deſtroys the ſprouting Weeds. Some Far-
defer this Tillage to the End of Winter.

The ſecond is perform'd in Spring; and, in ſome Parts the Country, at *Midſummer*. The Plough ought to wo deep in ſtrong Soils, as it likewiſe ſhould in the third Tillag which precedes the Seaſon for ſowing. Theſe three Ope tions are ſometimes inſufficient, and it will be neceſſary break the Land a-new, by cauſing the Plough to pa tranſverſly over the former Furrows*. But the Husban men are cautious of having Recourſe to this Expedient, Lands that are too moiſt and ſpungey, where the Furrow ought to be ſunk deep, and in a Poſition as ſlanting as poſ ble, to facilitate the Diſcharge of Water.

This Branch of Husbandry, twice perform'd, will ſuffi for the *March* Grain; the one before Winter, the other Spring. I ſhall not dwell on that Part of Tillage, which practiſed as ſoon as the Land has been ſown; ſince it is n ſo much a Cultivation of the Soil, as a Precaution for cove ing the Seed. This Operation is perform'd on ſtrong Soi with a Harrow, which is a large Inſtrument, made of heav Wood, arm'd with iron Spikes, or little wooden Pegs, order to ſcatter the Earth lightly over the Seed, which wou have too deep a Surface of Ground to pierce through, we it cover'd by the working of the Plough-Share. In lig Soils, this Labour is perform'd with a little Plough, that t Earth may more effectually cover the Seed, which wou ſoon be diveſted of all its requiſite Juices and Subſtanc if only a thin Surface of Soil was drawn over it by t Harrow.

Manures.

Manure is altogether as important as Tillag It is ſometimes required for the beſt Lands, a is always neceſſary to thoſe that are weak. good Soil is not dung'd, when we require nothing from but a ſmall Grain; but even This will not be produced weak Land, without the Aid of a Manure.

Chevalier. What are the particular Ingredients that gi Fertility to Land?

Prior. This Manure, which compleats what the Dews Heaven had begun, is the moſt contemptible Subſtance up the Face of the Earth; and is chiefly compoſed of t Litter taken from Stables, and Sheep folds. Dove-houſ

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* —— proſciſſo quæ ſuſcitat æquore terga,
Rurſus in obliquum verſo perrumpit aratro. Georg

Ho

-Coops, and the Dwellings of all domeſtick Animals,
iſh Manures that differ in their Degrees of Heat; and
ch being blended together, as well as quench'd and
rected by each other, replenish the Land with all the
tility it had loſt.

Ve may add to this Intermixture, all ſorts of Straw,
oble, Shells of Pulſe, uſeleſs Leaves, and the Refuſe of
den-Herbage. Rotten Wood has ever more Subſtance
prolific Salts, than any of the other Manures I have
tion'd. Prudent Farmers throw together, either in
or ſeveral Heaps, Chimney and Oven-Soot, together
n Rags, the Hair of Animals, Cuttings of Leather,
s of Beaſts, Bark of Trees, Lees of Wine, Sediments of
Malt-Duſt, Tanners Bark, and Dyers Lees. They
wiſe waſh the whole with Soap-Suds, which are com-
ly thrown out of the Laundry as uſeleſs; though Soap
mpregnated with Oil and Salts, which are the principal
nents of Plants.

o kind of Manure has more prolific Qualities than the
which is ſwept from populous Cities, and eſpecially
, where a great number of Kitchens, and Dyers of
l, are continually diſcharging into the Streets a fat and
Sediment, which is very beneficial to Corn.

he Husbandmen, in ſome Countries, ſave the expenſive
iage of Dung, by imparking Sheep, and ſometimes
s, on the Land intended to be manured.

hevalier. I have ſeen ſeveral Parks of this
re. They are ſquare Incloſures*, made of **Parks.**
r-Twigs, in which the Sheep are ſhut up
g Night. But how is it poſſible for them to continue
ſed, in ſuch a manner, to the Injuries of the Air?

rior. The Nights are mild and ſupportable, from the
of *June* to *November*; and Parks may be uſed, with-

Theſe Incloſures are form'd of Oſier-Hurdles, ten Feet in
h, and ſix in Height, and are ſupported by Stays laid croſs the
, and ſlanting towards the Earth. Four of theſe Hurdles will
fifteen Sheep. On each ſide, another Hurdle is diſpoſed only
gth, in order to contain as many fifteens of Sheep. But if a
ed of theſe Cattle are incloſed in a long Square, which has only
Hurdle for its Breadth, another hundred may be introduced by
ldition of one Hurdle in Breadth, by which means the Incloſure
e immediately doubled.

out the leaſt detriment, during that Period. The Wool the Sheep is likewiſe ſoften'd, and brought to Perfection, b its being alternately expoſed to Dews and Sun-ſhine. It always cuſtomary to form two Parks or Incloſures, con guous to each other; one of which is full, and the oth continues empty, becauſe the Sheep are removed out of on into the other, at three in the Morning, that a ſucceſſiv Warmth may be imparted to all the Land. The two Par are afterwards transferr'd to a new Situation, in order to pe form the ſame Functions the next Night; and with the the Shepherd likewiſe removes his little rolling Hut, whe he ſhuts himſelf up in the Evening, with his faithful Do that he may be prepared to guard his Flock from Wolv and Robbers.

Chevalier. The Peaſants, in ſome Parts, burn the Tu that covers their Land; and I could be glad to know wh Advantage they derive from a Practice that covers all th Country with a hideous Gloom of Smoak.

Prior. Your Curioſity, Sir, ſhall be ſatisfied. Beſides th Manures I have already mention'd, there is another, whic is exceedingly eſteem'd, and qualified to ſupply the Place all the reſt, eſpecially on fat Lands, if a ſufficient Quantit of it can be obtain'd. The Manure, of which I am ſpeaking is Aſhes, and particularly thoſe of Wood, or any othe Matter that has a due Subſtance, and is impregnated wit nutrimental Particles. Soap-Aſhes * are found, by Experience, to be very uſeful. The Aſhes of all ſorts of Herbag and Brambles are the only Reſource of the Inhabitants *Ardennes*, and ſeveral other Countries; where the Growth of Moſs, Fern, and Heath, denote a natural Sterility Soil. Thoſe poor People peel their Lands; or, in othe Words, pare off the Turf, with whatever adheres to it: after which, they form it into little Heaps, leaving a Vacancy in the lower part, and then ſet it on fire. Whe it has been thoroughly conſumed, they ſcatter the Aſhe over the Land, which is qualified by this Expedient, fo producing a fine Crop of Rye. They ſometimes perform the ſame Operation in their Foreſts, where, as ſoon as th Timber has been fell'd, and the ſaleable Wood carried of they burn the leſſer Branches, with the Chips and Leave

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* Mortimer's Husbandry, Vol. 1.

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conjunction with Thorns and Briars. They afterwards ak up the Ground with a Pick-Ax, it not being practica- for the Plough to paſs amidſt the Stumps that remain in Earth. The Aſhes, which they then ſcatter upon the nd, are always repaid with a rich Harveſt.

Some Farmers reſerve Aſhes, Soot, and all Manures of eaſy Carriage, for the moſt diſtant Parts of their Land. hers intermix Aſhes with Straw, and carefully reſerve the ole, either in a Pit, lined with Brick or Stone, or, at t, on a clayey Soil, where nothing can be loſt. The ſt judicious Farmers have likewiſe the Precaution to ke an advantageous Uſe of the Projection of a Roof, when s capable of ſloping over the whole Heap, and preventing Rain, or any other Flow of Water from waſhing away Oil and Salts, which conſtitute the chief Merit of the nure. When a Stock of Compoſt is not properly ſecured the bottom, or cover'd with ſome Shelter, it frequently enerates into a uſeleſs Sediment.

hevalier. I ſhall be careful to remember this Obſer- ion.

rior. This Compoſt is ſpread over the Land, at the ſe- d or third Tillage, but moſt commonly at the ſecond; the Salts may be ſufficiently diſſolved, and blended with Earth, before they can ſuſtain any Diſſipation.

hevalier. It is very ſurpriſing, that our Food ſhould be ured by the Inſtrumentality of ſuch vile and nauſeous terials.

rior. Say rather, my dear Chevalier, that it proves ry happy Circumſtance, and is juſtly entitled to our miration; ſince thoſe Things, that are moſt offenſive to us, ſuddenly changed into the Accommodations we chiefly l.

hevalier. I enter into your Thought, Sir, with ſure, and am ſenſible that my Conceptions are always neous, when I indulge any complaining Expoſtulations nſt the Works of God. This Maſs of Impurities would aily accumulated all around us, and would render our itations pernicious and inſupportable, if we had not an ortunity of diſpoſing it in a proper Place.

rior. There is ſomething more ſtill; for we not only diſcharge it on our Lands, but are agreeably compell'd, their need of it, to free our ſelves from this offenſive

Maſs. Let us remove it then to a ſufficient Diſtance ; us even baniſh it from our Thoughts, and be only attent to the lovely Verdure, into which it has been ſo happ converted, in order to be render'd the Source of Riches a Delight. Gardeners are as incapable of transform Subſtances, and changing Straw into Gold, as Philoſoph themſelves. A Hand more potent than their own enric them, by educing, from this vile Refuſe, the melting Mel the vinous Peach with its ſplendid Hue, the Juicy-Fig, preſumed Pear, and the foodful Corn ; whoſe Taſte, thou it be ſimple, is always attractive, and is counted prefera to the moſt delicately poignant and exalted Flavours.

Chevalier. This Transformation is daily accompliſ in our View, though the Manner of it be imperceptible.

Prior. Hitherto we have only mention'd ſuch Manu as impart a tranſient Fertility ; but there are others, whi in ſome meaſure, change the Nature of the Soil itſelf, render it prolific for twenty or thirty Years at leaſt.

The firſt Manure proper for effecting theſe laſting Chang is Marl, which is a Species of white Clay that is friable, n withſtanding its Fatneſs. This is found in Beds of differe Degrees in Depth; and when it has been ſpread over Land, it diſſolves, and, by its Incorporation with the Ear contributes to its Fertility. It warms and animates t coldeſt, as well as the ſtrongeſt Soils ; but its real Functi is to meliorate thin Land, which it impregnates w Salts, and prevents its immoderate Evaporation, by co denſing its Parts.

This precious Manure was known to the *Greeks*, a *Romans*, and likewiſe to our Anceſtors the *Gauls* *. V may, perhaps, have ſome Difficulty to procure a ſufficie Quantity of white Marl, ſince it is not very common ; b ſeveral Naturaliſts are of opinion, that Beds of Potters Cla and other compact Subſtances, which are almoſt univerſa under our Feet at unequal Depths, would produce t ſame Effect. They even aſſure us, that they have ma frequent Experiments of its Efficacy, in ſeveral Places, a generally with equal Succeſs †. It is very cuſtomary,

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* Plin. Hiſt. nat. l. 17. c. 7.

† Philoſophical Tranſactions, abridged. Vol. II. p. 731. Mor tmer's Husbandry, Vol. I.

Englan

gland, to uſe white Clay, on thin Lands, ſome of which,
hen they have been intermixed with the firſt Clay that
uld be found in the Neighbourhood, were productive of
e Wheat, for the ſpace of forty-eight Years.

The ſame Benefits that are derivable from Marl, and
haps from good white Clay, may be imparted by Sand
d Gravel to thoſe Soils that are ſtrong and moiſt, and
hoſe Parts are not eaſily ſeparated. Theſe prolific Quali-
s reſide, more peculiarly, in a Species of dry Earth, that
moſt commonly found near Mines of Iron.

Thoſe Perſons, who are able to bear the Expence of a
me-Kiln near their Farms, and can eaſily be furniſh'd
h ſuch Stones as are proper to be calcined, or diſſolved
Fire, may ſtrengthen the lighteſt Lands, and ſubdue the
deſt into Pliancy.

Thoſe Shells, which are ſometimes found in Beds, or
ge Heaps, under the Earth, or about its Surface; the
lls likewiſe of Oyſters and Muſcles; Sea-Sand, and
ge, which is a kind of Herb that grows on the Shores.—

Chevalier. I know it very well, and have ſeen Paniers of
ſters cover'd with it.

Prior. All Parcels of Matter whatever, that are capable
producing large Quantities of Salts, will communicate
tility, when they are properly diſpoſed upon Land.

it will frequently be ſufficient to form an Intermixture of
ural Earths, and to dig a Pit, to the Depth of a few
t, and in the Corner of a Field, for the working up of
Compoſition. We daily meet with Inſtances of OEco-
ny in Husbandry, by which marſhy Soils, that were
rely uſeleſs, and even unſalutary and pernicious, are
verted into excellent Soils, by being ſupplied with
vel, at a time when the Horſes are unemploy'd in any
r Work.

he Invention of fertilizing Lands, by an Intermixture
he Surface, not only with white Clay, but likewiſe
n the firſt common Earth that occurs in digging, is far
n being any Novelty; ſince it was practiſed in *Pliny*'s
ne, by the Inhabitants of the Countries adjacent to
gn and *Bonne*.

ou may judge, my dear Chevalier, by all the Species
Manures, which are every where to be found either on
Surface, or in the Bowels of the Earth; what a number

of Expedients are offer'd, by Providence, to Man, for Supply of his Neceſſities, and to correct the Infertility, his Land. His Domain is not limited to the Surface o Soil, but he is made conſcious, that the Deity has b pleaſed to conſtitute him the Maſter and Monarch of Earth, by leaving to his Induſtry the honourable Car its Improvement and Melioration.

Let theſe Preparatives to Husbandry be our Subject this Day. We will take another Opportunity to depo the Corn in the Earth, and ſhall then endeavour to pur it through all its Progreſs, till we have at laſt converted into Bread.

Chevalier. If we are Maſters of ſo many Expedients the Improvement of Land, all Complaints of the Il Qualities of the Soil we poſſeſs are very unjuſt, ſince th may be rectified by a little Labour.

Prior. I can inform you of a very ſingular Event, which I my ſelf was a Spectator, for ſome Years.

The whole Patrimony of a certain Peaſant conſiſted two little Spots of Ground, which would hardly produc ſmall Crop of Oats, or *Turky* Wheat. The poor Man w deſirous of raiſing a Growth of Corn, but as he was provided either with Cattle or Manure, he open'd a in a Corner of one of his Pieces of Land, and dug ou black Sand, which he ſcatter'd over the Surface of Ground. He afterwards manured the other Piece, wh lay adjacent to the high Road, with the very Earth that had heap'd up along the Extent of that Road. He th repeated this Mixture from year to year, and at laſt quired the fineſt Crop of Corn in all thoſe Parts. He joy'd the Benefits of this induſtrious Improvement, for ſpace of forty Years, though not without the Envy of Neighbours, who were ſo ridiculous as to charge him w magical Practices.

Chevalier. This little Piece of Hiſtory very much ſembles That of *Furius Creſinus*, which the Count lat gave me an opportunity of reading, in *Pliny* the Naturaliſt

Prior. I may poſſibly have read it too, though I do recollect it at preſent.

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[*] Lib. 18.

hevalier. This *Creſinus* had received his Freedom, and fterwards purchaſed a Piece of Ground, from which he ired, by indefatigable Labour, much finer Harveſts any of his Neighbours, who had the largeſt Tracts and. Theſe all beheld him with jealous Eyes, and ſed him with having recourſe to Incantations, in order mprove his own Land, by improveriſhing theirs. The *ile* ſummon'd him to appear before the People of *Rome*, he accordingly paid his attendance, with his Daughter, was a hale Country Girl, in a decent Habit. He wiſe produced, before his Judges, all the Equipage of Husbandry; the Implements were in good Condition,, Mattocks were very weighty; the Size of the Plough enormous; and his Oxen were all fat. *Theſe*, ſaid he, Romans, *are the magical Inſtruments I employ; there indeed, ſome others, which I am incapable of producing; ean the Sweats of my Brow, and my Labours by Day and ht*. This natural Eloquence gain'd all the Votes in his our, and he was acquitted by the unanimous Voice of Aſſembly.

CORN, AND OTHER GRAIN.

DIALOGUE XII.

The PRIOR. *The* CHEVALIER.

Chevalier. THE Land is already prepared, and requires nothing now but the Seed.

The Choice of the Seed.

Prior. The Seed ſhould be well choſen and ſteep'd in a lixivious Liquor, previous to its Plantation. The right Choice of it, conſiſts in ſelecting ſuch as have a promiſing Aſpect, and have been carefully winnow'd, and purified from Tares, and other improper Grain. It will be prudent, at particular Times at leaſt, to procure the Seed from a Soil, ſome Leagues diſtant from That, in which we intend to ſow it; for Corn will be apt to degenerate, by being always planted in the ſame Earth, where it exhauſts the Juices that are agreeable to it; whereas it finds a new ſupply in Land where it has never been ſet.

Chevalier. The moſt perfect Corn is undoubtedly choſen.

Prior. The Seed, though it be finely plump, and free from all Impurities, ſhould, however, be the Produce of a

Soil,

il, inferior, in ſome degrees of Heat and Fertility, to ur own. The Tranſition from an indifferent State to a ter, is eaſy; but when an excellent Nouriſhment is anged for one that is leſs perfect, the Nature of the Seed njured by that Proceeding, and its thriving State will be danger of declining.

Chevalier. What are the Ingredients, Sir, of that Lixi- am, through which, you ſay, the Seed muſt paſs, before Plantation?

Their Preparation.

Prior. Seeds are properly prepared, by ſſing them through a Lixivium of ick Lime, or by ſteeping them, five or Hours, in a Brine made for that purpoſe. It is uſual to ur into a large Basket a hundred and twenty Pounds eight of Corn, which is a Quantity, ſufficient for ſow- an Acre of Land. The Basket and Seed may be then nged, for ſome Hours, in a Veſſel, which, on that aſion, muſt contain twenty Pounds of Lime, and about ne or ten Pails of Water. The Corn ſhould afterwards be ed in the Sun, or it may be ſhook about in a Veſſel, erein three Pound of Salt-Petre, or half that quantity o um, or only two Ounces of Verdigreeſe have been diſſolved Water. Some Perſons uſe Vitriol, and others common t.

The Brine is ſometimes compoſed of Salts, extracted m the Aſhes of all ſorts of Plants; but ſome People think a better Method to drench the Seed in the Lees of Wine, the Dregs of Olives. There are Husbandmen, who y mix their Corn with bruiſed Lime, and ſow both the and the other; leaving to the Air and Rain, the care of perſing the Salts and Spirits of this Intermixture, under Furrows.

Chevalier. Theſe Methods are not new, but were ap- oved even in *Virgil*'s Time*; for that great Poet clares,

I've ſeen the Seed oft temper'd for the Soil,
With poinant Nitre, or the Lees of Oil.

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* Semina vidi equidem multos medicare ſerentes,
Et nitro prius, aut nigra perfundere amurca. Georg. 1.

Prior. Their Efficacy has always been confirm'd by Experience. This Brine fortifies the Corn againſt ſever Diſtempers, to which it is obnoxious. The brack Flavour it diffuſes, diſguſts, and chaſes away the Worms and Moles, and Field-Mice, that would otherwiſe devou the Corn in the Earth. Experience has likewiſe made i evident, that all lixivated Seeds are improved in their Fertility, and render'd more ſucceſsful. There are ſome Huſbandmen, who are ſo fully perſuaded of the good Effects o their preparatory Compoſition, that inſtead of a hundred an twenty Pounds of Corn, they only employ two thirds, o even but half that quantity; and mix, for each Acre, ſixt or ſeventy Pounds of Corn, with chopp'd Straw, that th Hand of the Sower may be fill'd as uſual.

A ſingle Grain, in conſequence of ſuch a Preparation has been frequently known to ſhoot up ſeven or eight Stems each of which has ſupported an Ear, which contain'd more than fifty Grains. The Number of Stems produced by one Seed is ſometimes prodigious, and they have amounted t more than thirty *.

Chevalier. I have heard you ſay, Sir, that there is but one Bud in each Seed.

Prior. The Number of Stems, produced from one Grain of Corn, is a Fact too well atteſted, to admit of any doubt. This Fact therefore, and a Variety of others, make it evident that I entertain'd a wrong opinion; and that inſtead of only one Bud, in each Grain, there is really a Pacquet of them; the moſt exterior of which ſhoots out firſt, and deſtroys all the reſt, by engroſſing the Nouriſhment from them, unleſs the adjacent Earth be impregnated with a ſufficient Supply of vegetable Principles, for their Support. This Profuſion of Buds, which are unfolded in proportion to the Quantity of Salts, and other nutrimental Aids acquired by them in the Earth, may be conſider'd as an Invitation to us to be inquiſitive after the beſt Expedients for their Improvement.

Chevalier. We have an ample Supply of all the different Species of Salts; and 'tis poſſible that we may hereafter be able to furniſh the Earth, at a ſmall Expence, with that particular Species and juſt Proportion of Salt, as will be

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* Malpighi Anatom. Plant.

ſufficient

ſficient to promote its Fertility for many Years, and withut the leaſt Intermiſſion.

Prior. Its Produce would then be increaſed to a third, perhaps one half more than it now affords.

Chevalier. We muſt, however, purſue the old Methods, ll theſe Diſcoveries are obtain'd; and I ſhall now be glad o know the proper Time for ſowing.

Corn.

Prior. The Species of Corn that are ſown efore the Winter-Seaſon, are the autumnal Wheat, Barley, and Rye. I ſuppoſe, Sir, you e not unacquainted with the Nature of Wheat, in general; ut there are ſome Species of it that are not very common; s the red, and white Pollard-Wheat; the former of which ſown in Spring, and the latter is ſown in *Dauphiné* and *landers*; Touzelle, which is common in *Languedoc*; and pelt, which the *Germans* uſe more than ourſelves.

Rye.

Rye is the Food of the poor People, and thrives n the worſt Soils, and the drieſt Years. Its reeſhing Qualities are frequently an Inducement o ſeveral Perſons to intermix a ſmall Quantity of it with Wheat, which it renders more tender and agreeable, and dds to it a pleaſing Freſhneſs. The dry and degenerate Kind of Rye, which is call'd horned or Spur-Corn, is only t to be thrown away; and it occaſions fatal Diſtempers in hoſe Countries where it is uſed by the Inhabitants.

Starch-Corn,

Starch-Corn, or autumnal Barley, is ſown efore the Winter-Seaſon. The Spike of this Grain has four Sides, whereas the common Barley has only two. It is cut in the Month of *June*, nd proves very ſerviceable to poor People, till the Harveſt upplies them with their Winter Proviſion. It may be ut while it continues green, and it ſhoots up two or three imes. Horſes are equally fond of the Straw and the Grain.

The ſmall Grains, which are ſown in *March*, are Oats, nd Barley; Lentils, and little round Beans.

Oats,

The Oat-Harveſt is an important Article in Commerce, becauſe this Grain is the principal Food of Horſes. It is likewiſe made into a ſalutary Gruel, when it has been clear'd from its Huſk.

Chevalier. What can be the uſe of that large wood Roller, which is drawn by a Horſe, over a Field of Oa that are newly ſhot up?

Prior. It compreſſes too lax a Soil cloſe to the Root and, by rendring the Surface a little compact, prevents a immoderate Evaporation, during the firſt Heats.

Barley.

Barley, though it be not altogether ſo uſef as Rye, is the Nouriſhment of a Multitude Animals. The Spaniards feed their Horſ with it, inſtead of Oats, and it makes fine Bread, tho' th Taſte of it is not very agreeable to thoſe, who have not bee habituated to it. This Grain is likewiſe the principal Ingredient of Beer, and it furniſhes us with Ptiſanes, Gruel and refreſhing Creams.

Chevalier. That agreeable Water, which we call *Orgeat* is undoubtedly made with this Grain,

Prior. A Paſte, compoſed of Barley-Meal, may be on of its Ingredients, if you pleaſe; but it is generally made with Melon-Seeds, mix'd with Sugar, and ſome ſcented Water.

Lentils, little round Beans, Lupines or wild Peas, and ſeveral other Species of ſmall Grain, are either ſown apart or intermix'd at pleaſure. Their Straw affords a goo Food for Beaſts of Burden, Cows and Sheep, and the Grain itſelf is given to Horſes, Swine and Fowls. Lentils, which are ſo much diſregarded in the Country, are in great eſteem at *Paris*, and contribute, at leaſt, to the Regularity of the Courſes brought to our Tables.

Black or *Saracen* Corn, which, according to the common Tradition, was imported on our Coaſts, by the *Saracens*, when they came to inſult us, towards the Expiration of the firſt Race of our Kings, is a ſmall ſable Grain, of a triangular Form. It proves an agreeable Food to Fowls, and particularly to Pheaſants, and its Flowers afford the Bees a delicious Regale.

Millet.

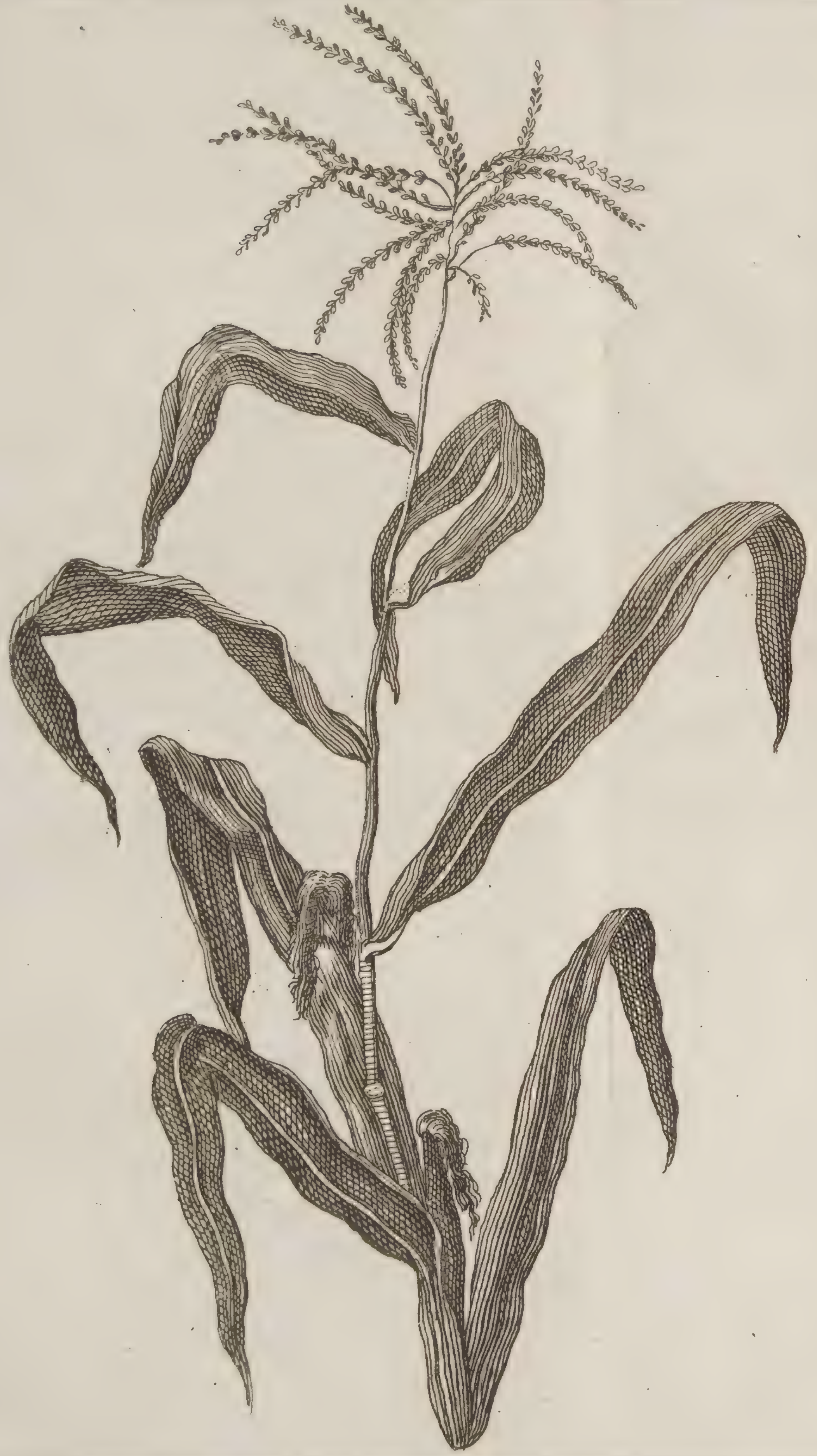
Millet is the ſmalleſt Species of Corn, and, among other Uſes, to which it is appropriated, it ſupplies *Canary* Birds and *Ortolans* with their moſt delightful Nouriſhment.

Panic.

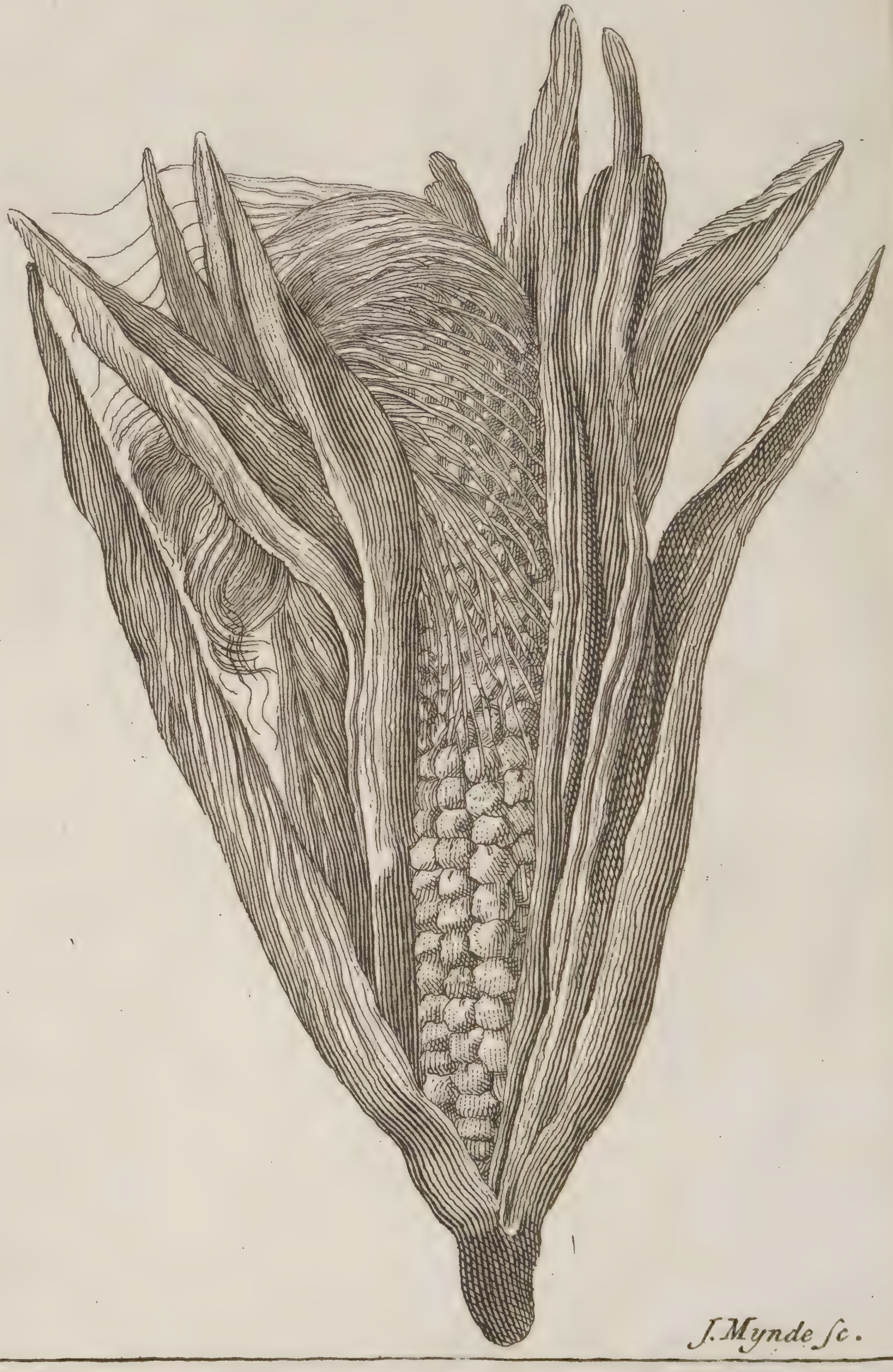
Panic, or bearded Corn, which ought not to be confounded with the bearded Corn, which is made into excellent Bread, is a Species of large Millet, whoſe Stem riſes to the height of eight or nine Feet.

Rice,

Plate 20 Vol. II page 199



The ſtem of yͤ Mays containing yͤ tenth part
of its natural ſize.



J. Mynde ſc.

Mays or Turkey Corn half yͤ ſize of its
natural bulk.

Rice.

Rice, which is but little cultivated in *France*, lights in Shade, and in Lands that are rather oiſt than fat. It might, in ſome meaſure, be lvantageous to ſow this Grain in our marſhy Lands, which e ſo uſeleſs at preſent. Rice is a very nouriſhing Diet, nd much uſed in Soops. It is the uſual Food of the *aſtern* People, and the *Chineſe* brew it into a Drink, hich ſerves them inſtead of Wine.

Mayz.

Mayz, or *Turky* Corn, is a large Grain, almoſt ound, ſomething angular, and about the ſize of common Pea. One Species of it is yellow, nother red, and a third ſort is colour'd like Marble. The omplexion of its Skin is extremely varied. It affords a very hite, and ſometimes a yellowiſh Meal, and its Taſte is ender'd agreeable by uſe. It proves a good Ingredient in agoûts, and may be made into Bread and Cakes. 'Tis uſtomary, likewiſe, to boil it; and This is the Manner, in hich the People of *Aſia* and *America* prepare it for their ables. This Corn acquires a very large Growth, and ay be employ'd inſtead of the generality of leſſer Grains uſually given to Animals. It ſhoots out four, five, and ometimes ſix Stems, like Reeds; theſe riſe about ſeven eet high, and contain a rich Pith or Syrup, from which real Sugar may be extracted. Each Stem ſupports two or pikes, four or five Fingers in height, and which are enolded in ſeveral large Skins, almoſt as ſtrong as Parchment; y means of which, the Grains are preſerved from all Humidity, and the Depredations of Birds. Every Spike is ompoſed of eight Sides, or Ranges, each of which contains hirty Grains; the whole eight yield two hundred and forty; he Product therefore of one Stem generally exceeds ſeven undred; and if we reckon no more than three Stems, the Grains they produce will amount to above two thouſand; nd all theſe ſpring from the ſingle Grain that was planted n the Earth.

This prodigious Fecundity, in conjunction with the beneficial Qualities of the Grain, has already induced the Husbandmen to plant it in ſeveral of our *Southern* Provinces; and they have derived great Advantages from their Labours, eſpecially with reſpect to their Poultry. The Harveſt of this Corn is not only much more abundant, but likewiſe more certain than any other; and its Goodneſs is more unimpaired by the Generality of thoſe Diſtempers t prove deſtructive to other Grain. You ſee, Sir, there ſome Countries, where Experiments are made without a detriment; but This happens not to be our Method. W begin with condemning every Practice that is not eſt bliſh'd among us, and are generally ſo modeſt, as to imagi our Conduct to be the Model of what is proper to done.

Theſe, my dear Chevalier, are the different Species nutrimental Grain; but there are other Seeds, which a planted to great advantage, in ſeveral of our Lands.

Oily Seeds.

Theſe are, firſt, the oily Seeds, which a ſown towards Spring. The chief of theſe a Cole-ſeed, which produces a Species of Ca bage; Rape-ſeed, which muſt not be confounded with th Seed of Turneps; Seſamum and Poppey-ſeed. Theſe a all productive of Oil for Lamps, and likewiſe for the dreſſin of Wool. The Oil extracted from Camomile, and ſever other Plants, is uſed in medicinal Preparations; and th Poppy-Oil is eaten in ſeveral Provinces.

Chevalier. Is there not reaſon to be apprehenſive of i proving as ſoporiferous as Opium, which is likewiſe extracted from Poppies?

Prior. I don't believe it comparable to the Oil c *Provence*, but it is daily eaten without any prejudicia Effect. The Opium, which flows from an Inciſion mad in the Head of a Poppy almoſt ripe, is intirely different from the Oil, which is drawn from the Seed.

After this Account of the oily Seeds, it will be proper t take notice of the various Claſſes of Plants that are ſown i open Lands; as Saffron, Senvie, Hops, Hemp, Woad, Tobacco, and ſeveral others.

Saffron.

Saffron, which is the beſt Revenue of ſome Provinces, and particularly of Part of *Gatinois*, where it grows in perfection, is a Plant that riſes from a bulbous Root. At the end of two Years, it will bloſſom in the Months of *September* and *October*. The Flowers are beautiful, and bear a Pointal, which riſes from their Bottom, and is divided into three Branches, which are called Darts. Theſe are the only Parts of the Flower that are uſed, as being what is properly called the Saffron. It is employ'd by Dyers, and our Cooks ſometimes uſe it, to colour their Ragoût with a light red. In a word, it is exceedingly eſteem'd by the *Northern* People.

Senvie.

Senvie is a very ſmall Grain, yielding a yellow Farina, which, with an Intermixture of Vinegar, or new Wine, to correct its Poinancy, is what we call Muſtard.

Hops.

Hops, which are propagated from Seed, Sets and Roots, produce a Flower that gives ſtrength to Beer, and chiefly contributes to its Agreeableneſs. They accompliſh their Growth, by twining round long Poles, in cultivated Lands, which are diſtinguiſh'd by the Name of Hop-Grounds. The Uſe, which is made of Hops, in the Liquour drank in cold Countries, and the Manner of raiſing them on Props, has given the Plant the Appellation of the *Northern* Vine.

I ſhall not acquaint you with any Particulars relating to Hemp and Flax, ſince they have been the Subject of a former Converſation *.

Woad.

Woad, Madder, and Weld, are ſown in ſeveral of our Provinces, for the Uſe of Dyers. Woad, which is likewiſe called Wade, is properly a Paſte, made with the powder'd Leaves of a Plant that is ſown in ſtrong Soils, and a hot Climate, like *Languedoc*, where it is much cultivated. The Leaves of this Plant are firſt bruiſed, and then ſteep'd in Water, for ſeveral ſucceſſive Months. The Sediment, which ſinks to the bottom, is work'd into a Paſte, and then ſent to the Dyers.

The little Woad of *Normandy* only differs from the other, as it is a leſſer Plant, and is likewiſe prepared with ſome Variation from the other Method. This Paſte, which affords a blue Dye, is the Baſis of moſt other Tinctures. Indigo, which produces a more perfect Blue, is not a Paſte of pulverized Leaves; but the Juice or Sediment of a Plant, which has been immerſed, for ſome time, in Water. The Plant itſelf is cultivated both in the *Eaſt*- and *Weſt-Indies*.

Weld.

The Roots of Weld furniſh a red Dye. The Plant flouriſhes in light and moiſt Soils, and in Marſhes that have been drain'd. We may form a Judgment of its Nature, by its ſucceſsful Growth the Iſland of *Zeland*, from whence we are furniſh'd with t fineſt Species.

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* Vol. I. Dialogue 15.

Madder.

Madder is another Plant, which is eaſily cu tivated in light Soils; it affords a yello Tincture, and is likewiſe an Ingredient in gree and other Dyes.

Fuller's Thiſtle.

The laſt Claſs of Seeds ſown in arable Land is That of Teſil, or Fuller's Thiſtle. The ſhagg Heads of this Plant are uſeful in raiſing the Na on Woollen-Cloth, and rendring it impenetrable the Air, by means of the delicate Down, with which the cover all the Surface of that Manufacture. This Pla proſpers beſt in a light Soil.

Chevalier. I have ſeen Tobacco, which is ſo much uſe thrive to perfection in very bad Land; and it ought to conſign'd to thoſe Provinces where the Soil is unfertile, an which the Cultivation of this Plant would certainly e rich.

Prior. There are Varieties of other uſeful Seeds, whe Nature correſponds with the Quality of ſuch Land as yo have mention'd, as you may judge by the Detail I hav given you of the ſeveral Species. All ſorts of Soils are cap ble of Melioration, and the Facility in chuſing proper See for that Effect has occaſion'd thoſe prudent Regulation which have limited the Culture of Tobacco to our forei Settlements; ſince it is often the only Plant, which can raiſed there with any conſiderable advantage.

Chevalier. Will you be ſo good, Sir, as to inform m when the uſe of Tobacco was originally introduced amo us? I have been told that it has not been very long vogue.

An hiſtorical Account of Tobacco.

Prior. In the Year 1560, Monſieur *Nic* who reſided in *Portugal*, in the Quality Ambaſſador from the Court of *France*, ſow Part of his Garden with the Seeds of th Plant, which he had received of ſome curious Perſons, wh brought them from a Part of *Mexico*, called *Tobacco*; an where the Natives diſtinguiſh'd the Plant by the Name *Petun*. The extraordinary Succeſs, which attended th Application of its Leaves to ſome particular Ulcers, gave the Reputation of an excellent Vulnerary. Monſieur *Nic*

ſe

ent this Plant to Queen *Catherine* of *Medicis*, and from heſe Circumſtances it acquired the ſeveral ſucceſſive Names f *Queen's Herb*, *Nicotiana*, *Petun*, and *Tobacco*; the laſt f which Names, it has imparted to one of the little *An-lles*, where it ſucceeds better than in any other Country. ts different Uſes are now univerſally known; it reſembles ur Henbane of *Canada*, in its principal Operation, which onſiſts in ſtimulating the Nerves, and affecting them with kind of convulſive Motion.

Chevalier. Can this Motion, which ſeems to be an Ir-egularity forced upon Nature, be productive of any good Effect?

Prior. It undoubtedly is qualified to free us from any edundant Humour; and it then becomes a ſalutary Remedy. But is there any reaſon to ſuppoſe that Health can nly be ſecured by a conſtant Recourſe to this Remedy; or an we imagine we derive any real Relief, from being every Moment affected with Convulſions?

The Manner of ſowing.

Let us, however, reſume our Subject. Of ll the different Seeds we have mention'd, ſome are planted ſingle, others in Pairs, and n Holes equally diſtant from one another. A third ſort is ſown, either with a ſingle or a double Caſt; and this latter Method is uſed with Corn. When the Husbandman has broken his Land into ſmall Parts, either for Wheat, or Rye, which are ſown in the Months of *September* and *October*; or for the *March* Grains, which are ſet in that Month, and likewiſe in *April*; inſtead of being ſo ſuperſtitious as to wait for any certain Period of the Moon, which would cauſe him to loſe the fine Days that are preſented to him, he faſtens his long Bag before him, into which he pours a Meaſure of the Grain, and winds the Extremity of the Bag round his left Arm, that he may have it at his full Command. He then fills his other Hand, advances in a direct Line, and ſcatters the Seed with a circular Caſt, by carrying his Hand to his left Shoulder. He afterwards fills his Hand a ſecond time, and directs its Motion by That of his right Foot. In this manner does he proceed, and with a Movement, whoſe Juſtneſs and Regularity are very pleaſing to the Eye of a Spectator.

Chevalier. Is Pleaſure then conſulted in this particular Motion?

Prior. By no means, Sir; and the Exactneſs, wi which he performs it, is only calculated for the eq Diſtribution of the Seed. When he has fill'd one Space Ground, he turns off into a new Line, whoſe Diſtan from the other is adjuſted by the Extent of the Caſt. T Corn begins to vegetate, when it has been four and twen Hours in the Earth.

When the Article of ſowing is compleated, the Husban man begins to enjoy ſome Reſpite from his Labour; and o of his greateſt Satisfactions, at that time, is to walk over h Ground, and ſee a Field, that was dry and naked a fe days ago, entirely cover'd with a beautiful Verdure. H Heart then exults with Joy, at theſe favourable Omens of fertile Harveſt.

Chevalier. Let us attend him in his Walk, and ſhare h Contemplation on the Progreſs made by the Grain, from th Moment it is firſt unfolded, till the Seaſon when its Fru appears.

Prior. This amiable Operation of Nature begins to b withdrawn from our View, and the Seaſon, when by open ing the Earth I could have ſhewn you the Seed newly ſho forth, is unhappily elapſed. I, however, have found out a Expedient for procuring you a ſight of this Proceſs, withou any difficulty. I have cauſed ſeveral Grains of Corn, and Seeds of all kinds, to ſhoot forth in the open Air, withou any Aſſiſtance from the Earth; and will now acquaint you with the Method for obtaining this Effect. You are to lay the Seed on a light Spread of Wool, which muſt be ſup ported by a leaden Plate, pierced through with ſevera Holes, which ought to be ſomething large. When thi Plate is placed over a great Veſſel, always fill'd with clea Water, and which ought frequently to be renew'd, it wil draw up a Moiſture into the Wool, which performs the Functions of Earth to the Seeds. Theſe will begin to ſhoot in a few Days, and their Roots will be gradually extended to the Water; and though they will then acquire fewer Juices than they would imbibe from the Earth, they will, however, be ſucceſsful in their Vegetation; eſpecially if the Water be changed, and likewiſe intermix'd with a ſmall quantity of Salt. I have compared the Circumſtances, which attend the Seeds in the Wool, with thoſe that occur them in the Earth, and find the Proceſs to be much the me.

When a Seed has been in the Ground about two Days, e Juices, which ſwell it, are communicated to the Bud, d cauſe it to ſhoot. This Bud is always lodged in one of e extreme Parts of the Seed ; and that Portion of it, hich lies near the Surface, is the little Root of the future ant. That part of the Bud, which is next to the inward ibſtance of the Seed, is the Stem and Head of the Plant. he generality of Seeds are compoſed of two Pieces, called obes, and which are, at firſt, united by a common oldage, whoſe Texture is more or leſs ſubſtantial. When e Seed is ſwell'd by the Juices of the Earth, the Lobes urſt their Covering, in conſequence of which, they are ſeparated from each other; and they then furniſh the young ant with the fine milky Nouriſhment, with which they e impregnated. They are likewiſe ſtrengthen'd by the roceſs of Vegetation ; they ſhoot out of the Earth, in order perform the Office of ſeminal Leaves to the Plant, and ither away, when it has exhauſted them of their nutriental Fluid, and no longer needs their Aſſiſtance. You ill obſerve every Particular of this Progreſs, in ſeveral ecies of Beans, as alſo in Peas, and the Seeds of Citruls, d Melons; and I think the Inſtances I have now offer'd e ſufficient.

There are other Seeds, whoſe Foldage is not ſeparated to two Parts, in order to furniſh the two firſt Leaves ; and o' it ſupplies the tender Plant with its original Nouriſhent, it continues in the Earth, where it ſhrinks into rinkles, and withers in proportion to the Strength the ant acquires, by extracting more ſubſtantial Juices from e Soil. You will experience this Proceſs in Wheat and illet, which I have carefully traced in their different Ac- ſſions of Growth.

The Corn-bud.

When a Grain of Corn has been depoſited the Earth for the ſpace of twenty four ours, the Bud uſually begins to diſengage elf from the Subſtance of the Grain, and ſhoots out its oot and Stem. The Root is at firſt wrapt up in a kind of urſe, through which it forces its way. Two other Roots ring forth, in a lateral Direction, within a few days, and urſt through the Texture that cover'd them. Each of the three Roots is ſhagged with a number of Fibres, whi closely twine about the ſaline Particles of Earth that a preſented to them in their Progreſs, and extract from the whatever is capable of nouriſhing the young Plant, in co junction with the Fluids it ſtill derives from the inwa Subſtance of the Seed, to whoſe Bottom the Plant exten ſeveral ſmall Filaments.

The Stem. The Stem ſhoots upwards, in as direct Line as it poſſibly can form, while the te reſtrial Juices habituate the Root to deſcen by inſinuating themſelves into its Pores. The ſame Juic are likewiſe inſtrumental in raiſing the Stem, while the A by flowing into its Pores, promotes the Continuance of th Direction. The Body of the Plant aſcends inſenſib through a little Tegument that preſerves it. Theſe ſorts Teguments are very common in Plants; they likewiſe e compaſs the generality of Flowers; and we may obſer them folded round the Buds of Leaves, in Trees. Th are ſometimes lengthen'd, like a ſecond Growth of ſemi Leaves, as is very evident in the expanding Gems of t Cheſnut-Tree; but they ſoon wither, when no danger a tends the Plant that was conſign'd to their Care.

The Leaves. The Corn will begin to ſhoot a little ve dant Point out of the Earth, about the ſix Day after its Plantation. This feeble Stem only a Pacquet of Leaves folded over one another around t Spike, which ſtill continues inviſible, and is lodged in t Heart. The firſt Leaf of this Pacquet opens a little towar the Point, but its lower Part is always roll'd up in the ha Covering, from whence it ſprings. Some Days after th Proceſs, the Foldage of the Seed, though it has ſtill ſom Remains of a milky Fluid, begins to ſhrink, and fall in Wrinkles.

The Purſe, which incloſed the Roots, begins to with away, and all theſe tranſient Pieces ſoon die and diſappea when they have accompliſh'd the Functions, for which the were appointed.

If we clear away the Tegument of the Seed, and retrenc the Foldage from whence the Roots have ſhot, as well That, which emitted the Pacquet of long Leaves; we ſha have nothing left but the Pacquet itſelf, which contains th green Leaves, and the real Stem. Theſe Leaves, whe y are unfolded in a proper manner, will diſcover the t Rudiments of four Tubes, which compoſe the Stem, l at whoſe Extremity the Bud of the Spike will appear. om the firſt Knot, which is neareſt to the Roots, a Leaf ings forth, and performs the office of a Covering to a ond Tube. Another Leaf likewiſe riſes from the ſecond ot, and wraps itſelf round the third Tube. The third ot produces another Leaf, which encloſes a fourth Tube, ether with the Spike. The Space between the firſt and ond Knot, neareſt the Roots, is then much larger than Interval that ſeparates the ſecond Knot from the third. the uppermoſt of theſe Tubes, which are join'd into another, riſes the Spike, which is eaſily diſtinguiſh'd by Roundneſs and Tranſparency of its little Grains, that emble ſo many Pearls.

When the green Leaves of the Corn have acquired ſo ch Thickneſs, at the return of Spring, as to make it pro- ble, that the Stem will be impair'd and cruſh'd down un- r the Weight of the Spike; the Husbandman introduces a ock of Sheep * into his Field, to nibble off the Points of Foliage, which ought to be conſumed in a ſhort Time; d this Expedient fortifies the Stem, which is incloſed by oſe Leaves.

The Growth of Corn now begins to be ſecured. The ike riſes from the Covering that ſhelter'd it from the In- mency of a cold and inconſtant Air: The different Lodg- ents, that are to contain the future Grains, begin to be en- ged; and they ſhoot out two kinds of Piſtils, to receive Powder from the Knot of Chives that appear in a higher uation, and impart Fertility to the Buds. When none this Powder happens to be diſcharged, the Buds are un- oductive, and the Covering, with its Contents, remains t and uſeleſs.

When the Buds have lengthen'd and dilated that mealy bſtance, to which they are united by Branches that may call'd the ſeminal Roots, the Foldage, and likewiſe the ſt Leaves, which extracted from the Earth and Air ſuch ices and Spirits as were proportion'd to the delicate Tex- re of the Stem, begin to wither away; and as the Stem

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* ——Ne gravidis procumbat culmus ariſtis,
Luxuriem ſegetum tenera depaſcit in herba. Georg. 1.

is then ſtrengthen'd, it operates with more Vigour by itſ It diveſts the Leaves of their nutrimental Juices, whicl engroſſes to itſelf, though in reality they are only to enr the Spike, which it bears.

Chevalier. When you have fortified the Stem, Sir, much as you pleaſe, it will only have a Breadth of t twelfths of an Inch, to ſtrengthen a Height of four or f Feet, and ſometimes more. How is it poſſible then for weak a Trunk to ſupport the Spike, with all its Grai My Life depends on the Preſervation of this Plant, and wh I conſider, that the leaſt Wind lays it low, it creates ſome Inquietude.

Prior. I confeſs you have reaſon to be ſurpriſed, that precious a Spike ſhould be ſuſtain'd by ſuch a ſlender a lofty Stem, which is deſtitute of Shelter and Support, a is planted in the Midſt of a vaſt Field, where all the Win have, alternately, their full play. Let us therefore inqu what Reaſons can be aſſign'd for ſo extraordinary Structure.

Corn aſcends more than moſt Species of Grain, and ev to the height of four or five Feet; that it may riſe above putrifying Humidity, which exhales from the Earth, an whoſe Effects are very perceptible after the Cloſe of Da when the nocturnal Cold condenſes this moiſt Vapour, an prevents its Diſſipation. Were the Grain lodged at a l diſtance from the Earth, the watry Steam would cauſe to bud forth with too much precipitation.

This lofty Stem has only two twelfths of an Inch for i Diameter; but this Proportion is adjuſted by the nice OEconomy, ſince a ſmall Field is hereby qualified to co tain a great Number of Spikes. But as lank as this Stem a pears, it has been form'd by an Art that preſerves it, for th ſpace of five Months, uninjured by the Fluctuations of Ai Four Knots, of a ſolid Subſtance, and which reſemb ſtrong Bands, faſten it ſufficiently, without depriving it c its due Flexibility; and it continues capable of bending without breaking, under the common Gales of Wind, c even beneath the formidable Force of impetuous and ſudde Blaſts; ſince its Knots enable it to recover its former Poſition in the returning Calm. It is a pleaſing Sight to behold th eaſy Undulation of this Foreſt of Spikes, which gently ſin

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th each ſucceſſive Flow of Air, and ſeem to roll like the aves of an immenſe Ocean.

The ſame wiſe Precaution has been employ'd in the For- ation of the Spike, in which the Grains are ranged one ove another, at equal Diſtances, that the Nouriſhment y be equally diſtributed amongſt them. They are ewiſe conceal'd and ſecured under different Cover- s, which are ſubſtantial enough to weaken the Force the Sun-beams, and are ſo compactly join'd together, as exclude and throw off the Dews and Rain, which would erwiſe cauſe them to ſhoot forth. Several of theſe verings terminate in as many Points of different Degrees length, and which, in the Opinion of ſome Perſons, are le Canals, appointed for the Introduction of a proper antity of Air into each Cell; others think, they form a liſade againſt the Ravages of Birds *. I am very inclina- to believe, that theſe Points, or Beards of Corn, are ended to break the force of Rain-Drops; in conſequence which, they are diſcharged from each ſide, inſtead of king in, towards the bottom of the Cells of the ſeveral ains, which would be rotted by a continuance of Moi- e amongſt them.

Mildews.

Nothing is more noxious to the Spike than vio- Winds and Mildews, which latter are a ll viſcous Rain, whoſe Parts, that are moſt regnated with Sulphur, adhere, in different Quantities, ome particular Stems, where they are glew'd while the ter flows down. The Sun, which afterwards heats this mmy and combuſtible Fluid, renders it ſo active and pe- ating, that it burns the Stem, and converts the Grains a kind of Cinder, or black Powder, whoſe Intermix- with the good Corn, is deſtructive to its Growth.

hevalier. Is there no Remedy againſt this Diſaſter?

rior. As to Tempeſts, which are appointed for our ſhment and Probation; neither Force, induſtry, nor other Precaution, will avail againſt them; but the per- ous Effects of Mildews may be prevented by a long d, drawn by two Perſons ſucceſſively over all the Spikes Field; and by ſtrongly ſhaking off the ſmall Rain, be- it has been inflamed by the Sun.

Contra avium minorum morſum muniuntur vallo ariſtarum. de Senect.

The Harveſt.

The Corn at laſt aſſumes its golden H but we are not to have recourſe to the Sicl till the yellow Complexion of the Harv begins to deepen into a red, and the Grain, by unfold its Covering, invites us to gather it in, and prevent ſpontaneous Fall. 'Tis then that a number of offici Hands tender us their Services, and are willingly blacke in the glowing Sunſhine, in order to cut down and bind Sheaves. The poor Labourers, by theſe means, ſecure the ſelves a ſhare of this beneficial Grain, which was den them by their deſtitute Circumſtances of Life, and the In tility of their native Provinces. They paſs from Pla where the Harveſt is compleated, to thoſe Parts where proves more tardy, and cloſe the Scene of their Labo with the *March* Grain. Theſe good People reviſit th beloved Families in Autumn, and no longer dread the A proach of the melancholly Seaſon of Winter. Their Labo have ſupplied them with Bread, and an eaſy Satisfact of Mind; and they have now acquired a Sufficiency to themſelves from the Importunities of Taxmen.

Chevalier. The Poor as well as the Rich are now crow with Plenty; but as we ought to be capable of preſerv the Gifts of Nature, I muſt intreat you, Sir, to refreſh Memory with the Obſervations you formerly made, in tranſient manner, on the Methods of ſtoring up Corn fo length of Time.

Methods for preſerving Corn.

Prior. Corn is very different from Fru with reſpect to the manner of its Preſervati As theſe latter are only intended for our freſhment, in the courſe of their Succeſſions a few Weeks, and, at moſt, can only be preſerved throu the enſuing Winter; all their Covering is but a light Ro which, however, is proportion'd to the Nature of the S ſon, in which we are allow'd their Enjoyment. Corn, the other hand, which is to be our Nouriſhment in all S ſons, inſtead of being cloth'd with a ſlight and pliant Arr enfolds and ſecures the Meal, that is to be our future Suppo in a ſtrong and ſubſtantial Texture, in conſequence of wh it continues good for ſeveral Years, and is qualified for Tra portation to other Lands that need it; to which we m add, that it is hereby render'd capable of being reſerved

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lick Granaries, for preſſing Occaſions, and of being
t for ſeveral Centuries.
The firſt Method of preſerving Corn, is to let it remain
the Spike, which is its natural Manſion, and furniſhes us
h the only Expedient for conveying it to the Iſlands and
vinces of *America*, that ſollicit us for a Supply of this
od. But if we neglect to ſend it to them in the Ear, as well
n cloſe Casks, it will evaporate its Subſtance, and be un-
ductive whenever it happens to be planted. The In-
itants of thoſe remote Countries ſow it in the Ear, for
better Preſervation, and raiſe it to Maturity by that
caution; but this Method of preſerving it, would be
nded with ſeveral Inconveniencies among us. Corn is
either to rot, or ſhoot up, when there is the leaſt Inter-
ture of Humidity in the Heap. It is likewiſe infeſted
Legions of Rats, who, amidſt the Security they derive
n the Solitude of the Granary, conſume the Labours of
Hands without the leaſt Moleſtation; and the Detriment
frequently very great, before it happens to be diſcover'd.
want of Straw likewiſe obliges us to ſeparate the
in from the Ear, and which is perform'd by ranging one
f by another, on the Barn-Floor, and ſtrongly threſhing
n with Flails. The Antients diſengaged the Corn from
Ear, by cauſing an Ox to trample upon the Sheaves, or
rawing a heavy Carriage over them, which produced
ſame Effect. The *Italians* and *Gaſcoigns* ſtill employ
ns or Sledges in this manner. The *Turks* cruſh the
of Corn with broad Planks, planted with Iron Spikes,
arp Flints; but nothing has been yet found to be more
ctual than the Arm of a ſtrong Threſher, who, by
ng aloft the Staff, on which the Flail is hung, diſcharges
roke on the Sheaves, with a Strength proportionable to
eight, from which the Flail deſcends.

he ſecond Method of preſerving Corn is to turn and
now it frequently, when it is out of the Ear, and like-
to remove it, from one Place to another, with a Sho-
or to pour it through a Trough, or Mill-Hopper, wide
e Top, and narrow at the Bottom, into others placed
v, and from whence it is againſt raiſed by a Crane, or
other Machine, to the upper Floor. When the Corn
been thus moved and aired, every fifteen Days for the
ſix Months, it will require leſs labour for the future,

if Care be taken to lodge it in a dry Place. The Air Motion are ſufficient to preſerve it in a moiſt Seaſon, f Heat and Duſt, as likewiſe from Mites. But if theſe In are permitted to ſlide into the Heap, and continue ther any Length of Time they will ſoon ſwarm like Ant-H and their Devaſtations will reduce the Corn to a Hea Duſt. Perpetual War, therefore, muſt be declared ag theſe Invaders, by moving the Grain a-new, and rub the Places adjacent to it with Oils and Herbs, of ſuc ſtrong Odour, as will be ſufficient to chaſe them away. G lick and Dwarf Elder are very effectual on this Occa Theſe Animals may likewiſe be expoſed to the open which immediately kills them; or the Heap of Corn be conſign'd to a Brood of Chickens, who will quit Grain, 'tis reported, to prey upon the Mites, as faſt as appear.

Chevalier. Before we intruſt the Corn to their Vigila it would be proper to offer them a certain number of Gr mix'd with ſome of the Mites, that we may be ſati whether the Fowls act with Integrity.

Prior. I have known a Farmer depend on their Fidel but it would not be amiſs to make the Experiment.

When the Corn has been preſerved from all Impuri for the ſpace of two Years, and has exhaled all its Fir may be kept for forty, fifty, or even a hundred Years, lodging it in Pits, covered with ſtrong Planks, cloſely jo together; but the ſafer Method is to cover the Heap wi thin Surface of quick Lime, which ſhould be diſſolved ſprinkling it over with a ſmall quantity of Water. Lime cauſes the Grains to ſhoot to the depth of two or t Fingers, and incloſes them with an Incruſtation, thro which neither Air nor Inſects can penetrate,

Chevalier. I am ſurpriſed at the different States, thro which Corn paſſes, as well as at the Dangers, to whic is obnoxious, and the Care it requires from Man, befo can be fit for his Nouriſhment,

Prior. We have had recourſe to a thouſand Expedie to ſecure the Enjoyment of this Grain, and to alleviate Labours it coſts us. We employ hard and poliſh'd Inſtruments, to facilitate the Toil of rearing it, and con the moſt painful part of the Fatigue to Horſes and O We accelerate the neceſſary Motions and Diſpatch

Husban

ſbandry, by Wheels and Leavers, and a hundred other
chines, which are uſeful in gathering, threſhing, tranſ-
ting, grinding and baking. But as dexterous and in-
tive as Man has been for the Mitigation of his Labours,
the frugal Management of his Time; Corn, which is
beſt and moſt neceſſary Nouriſhment, obliges him to
mit to a perpetual Round of inevitable Toils. 'Tis here
the Deity has made Neceſſity prevail over Indolence,
e than in any other Inſtance whatever; and tho' his
vidence, alone, increaſes what Man endeavours to pro-
te by Plantation and Culture; he is more deſirous to
eal his Gifts and Benedictions, under the Veil of hu-
Labour, than to render us inactive, by ſupplying us
a conſtant Flow of Liberalities, which would only
us the Pains of collecting them together.

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VINES.

VINES.

DIALOGUE XIII.

The COUNT. *The* COUNTESS.
The PRIOR. *The* CHEVALIER.

Count. THE Declivity of the Hill begins to be c agreeable, and we ſhall walk, with m Satisfaction, on the moſſy Turf that bord the Vines; where we may take a view of what the Yea like to afford us.

Chevalier. The Mountains, that continually riſe in way, are very incommodious; and as the Earth is allot to us for our Habitation, would it not afford us a m amiable Appearance, were it laid out in one continu Level?

Counteſs. Let me deſire you, Sir, not to entertain a unfavourable Opinion of Mountains and Hills; ſince th preſent us with pleaſing Views and ſurpriſing Amphitheat that enliven our Paſſage with a number of fine Varieti They likewiſe render our Habitations infinitely m agreeable, and adminiſter Complaints to none but T vellers.

Count. The Extent of our Domain is increaſed, and moſt doubled by theſe majeſtic Elevations.

Prior. Were we only to enjoy Plains, we
uld ſoon be deſtitute of many Accommo-
ions. The Hand, which formed this
obe of Earth, has diverſified its Surface,
h a Wiſdom that attracts our Admiration and Gratitude,
proportion to our Perceptions of its Beauty. The great
ator did not think it ſufficient to afford us an Extent of
l Soils, endued with all the Qualities, which are requiſite
the Production of the various Species of Grain, that fur-
us with our chief Subſiſtence; but he has likewiſe
ed Hills and Mountains, at proper Intervals of Diſtance,
upply us with favourable Situations for Vines, and other
nts that require ſtrong Reflections of Light, to compleat
Maturity of their Fruits. Take a View of all that
d, which deſcends in a ſlant, in order to receive a direct
nation of the ſolar Rays, which would be tranſmitted
blique Lines to a Plain. May not theſe Declivities be
ider'd as ſo many grand Eſpaliers, which invite us to
elliſh them; and where the Vigour of the reflected
ns is united with the Purity of an open Air? This Al-
ity Hand, therefore, is equally beneficent and maſterly
s Operation, and has imparted, as you may obſerve, a
ber of Graces and uſeful Qualities to thoſe Portions
and, which ſeem to be irregular, at the firſt View.

The Uſefulneſs of Hills.

unt. The various Advantages, that reſult from Moun-
furniſh us with ſome of the fineſt Subjects for Con-
tion; and we perhaps may take an opportunity to
y the Curioſity of our dear Chevalier, on that Article;
t preſent, we ſhall make a ſufficient Apology for Moun-
by declaring them to be inſtrumental in ſupplying us
Wine.

evalier. If they render us ſuch Services as theſe, they
nger ought to be the Subject of any Complaints. But
Vine incapable of Cultivation on a level Soil?

unt. It is ſeldom very ſucceſsful there, for as *Virgil*
eres,

cchus, *on airy Hills, with Pleaſure pours*
rich Profuſion of his choſen Stores *.

—— apertos
Bacchus amat colles. Georg. 2.

I may add too, that it will not proſper on all ſorts Hills, for which reaſon it is uſually planted on ſuch as ha either an *Eaſtern* or a *Southern* Aſpect, provided the Land properly temper'd in other reſpects.

Counteſs. The Sight of theſe dry Hills and hangi Lands, which are incapable of being cultivated by t Plough, would incline one to believe they are all unferti and yet they are yearly covered with the fineſt Verdu and preſent us with the moſt delicious of all Fruits.

Prior. The ſame Motive to Admiration, which we d cover in the lean Soil that nouriſhes the Vine, is equa evident in the Plant itſelf, which ſupplies us with Wi Who, till the Fact had been experienced, could ever ha imagined, that a Growth of deſpicable Wood, more form'd and brittle than any other Claſs of Plants, and t moſt uſeleſs of all, when cut down, ſhould yet be capa of producing ſo exquiſite a Liquor! If we only plant it a dry and ſandy Soil, which diſcovers all the outwa Marks of Sterility; this very Soil, when it has once be diluted with moderate Dews, will unfold a multitude Cluſters, that ſwell with a delicate and ſprightly Juice, the Accommodation of Man. From whence has the V derived a Set of Qualities ſo ſuperior to its mean Origin and the Drineſs of its native Earth? By whom has it be animated with ſuch a Flow of Spirits, and with ſo mu Fire? And by what Precaution, has its Juice been qualif to preſerve ſuch extraordinary Vigour and Perfection, many Years; to remain unjured at the Shocks of Carriag and Tranſportations to diſtant Lands; and to be convert into a Liquor ſtill more ſtrong and penetrating, and whi has received a thouſand Variations from Curioſity a Experience?

Wine the Source of Joy.

Counteſs. I am not ſo much ſurpri at the Production and agreeable Flavour Wine, as I am at its beneficial Effec Other Liquors, whether natural or art cial, as Beer, Cyder, Tea, Chocolate, and Coffee, cre Silence and ſerious Airs, for the generality, and confi thoſe, who drink them, to a melancholly Caſt of Mind. they ſometimes aſſemble a Company around them, the Co verſation either aſſumes a moralizing Turn of Gloomin or degenerates into an inſipid Flow of Politics, which ſor

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nes ends in a diſobliging Warmth of Argument. But it
the peculiar Privilege of Wine to introduce Vivacity
d Joy, where-ever it appears. It unfetters the Tongue,
igorates the Mind, and prompts the Heart to utter its
aſing Tranquillity, in chearful Songs.

Prior. As Wine is the infallible Source of Joy, it may
nſequently be conſider'd as the Soul of all our Feaſts. No
tertainment can be agreeable, without the Miniſtration of
s generous Liquor. Wine alone is ſufficient to compenſate
Want of many exquiſite Dainties, but nothing can be
ſtituted, to any Satisfaction, in its room, and no Varie-
s have Merit enough to reconcile the Company to its
ſence.

Count. We may add to theſe excellent Qualities, that it
fuſes an Air of Serenity thro' all the Features, by its
ſſipation of Sadneſs, and every Cloud that penſive
uſings had drawn over the Mind. It brings inveterate
emies together, and cauſes them to reviſit each other,
h an Air of Openneſs and Unconſtraint. Anger no
ger lightens in their Eyes; they grow conſcious of a
tual Amiableneſs; and all their Averſion diſappears in a
iving Friendſhip. Wine, by theſe means, becomes the
ſuaſive Mediator of the ſofteſt Reconciliations, and may
ly be conſider'd as one of the moſt engaging Bands of
ciety.

Prior. It likewiſe proves the moſt effectual Support to
n, in the Courſe of his fatiguing Employments; either
cauſing him to enter upon them with Alacrity, or by a
den Reſtoration of the Vigour he had exhauſted in their
compliſhment. The Deity, amidſt the rigid Labours,
which he has made it abſolutely neceſſary for Man to
mit, was unwilling to overwhelm him with their Weight,
to leave him deſtitute amidſt the Gloom of his melancholly
oughts. While his Providence diſpoſes the Earth to
niſh the induſtrious Husbandman with ſuch Bread as is
alified to nouriſh and ſtrengthen him; it likewiſe pre-
res for him a Liquor, which gladdens his Heart, and re-
nciles him to all his Toils. Take a view of that poor
an, who bends under the Burthen of Wood that loads
m, and labours on with a ſlow and unſteady Pace. Two
aſſes of Wine, deducted from the Collation I ſee prepar-
for us, in this agreeable Meadow, will be ſufficient to

change the Anxiety of his Air, and the painful Manner
his March, in an Inſtant. In ſhort, the Alteration will
ſo extraordinary, that you would hardly believe him to
the ſame Perſon.

Chevalier. The Experiment ſhall be made immediate
and I intend to charge myſelf with the Cup-bearer's Offic

Prior. Inſtead of the dejected Mien which disfigu
his Countenance a Moment ago, the Wine has ſpirited
Features with an Air of Gaiety, and ſuch a Freſhneſs
Colour, as neither Eſſences nor Paint can imitate. Br
ſtrengthens a Man for his Work, but Wine enables him
act with Vivacity, and renders his Labour agreeable. T
Soul, which before was involved in a black Melancho
ſeems to revive at the chearing Draught. She re-aſſum
her Powers, ſheds her Energy thro' every Part, diſpen
Agility to the Feet, and teaches the Lips to ſpeak the L
guage of Joy. All her Anxieties are no more remember'
ſhe is inſpired with lively Ideas, and the Timidity, wh
ſeem'd to contract her Faculties, by confining her to
Proſpect of her Pains, immediately reſigns its Empire,
ſoothing Hopes and ſteady Reſolution.

Counteſs. I have diſcover'd another Property in Wi
It is ſo exceeding friendly to Man, that it varies its Flav
agreeably to our Diſpoſitions. If we are bleſſed wit
State of Health, Wine delights the Smell, regales the Pala
ſtrengthens the Stomach, and ſeems to intimate to us its C
formity to our Wants. But if we happen to be indiſpoſ
its inchanting Flavour is changed to an inſupporta
Bitterneſs; and it then ſeems to inform us, in the m
obliging manner, that its Qualities would increaſe
Diſorder,

Chevaier. And yet the Wine itſelf has not ſuſtain'd a
Alteration.

Prior. The Change is accompliſh'd only in our ſelv
But is it poſſible for us to miſapprehend that wiſe OEconom
which has diſcharg'd us from the trouble of tedious Exam
nations, and uncertain Conjectures, with reſpect to w
Food may prove beneficial or injurious to us, ſince the ſa
OEconomy has made ſo admirable a Regulation of our D
by the compendious Method of pleaſing Anticipations a
ſalutary Diſguſts?

Chevali

Chevalier. You have given Wine its due Commendations ;
it is not always a beneficial Liquor. It renders ſome
ple extravagant, and even works them into Madneſs ;
I have heard ſome Perſons ſay, that it would be ad-
ntageous to Mankind, were all the Vines in general
ted up.

Counteſs. The moſt nouriſhing Food will occaſion Diſtem-
s, when we uſe it with Immoderation. The Abuſe of
ne, therefore, is not a ſufficient Reaſon for ſuppreſſing it
irely.

Prior. We have freqently heard of pretended Philoſophers,
l unjuſt Law-givers; ſuch as *Pentheus* *, *Domitian* †,
Mohammed ‖, who have endeavour'd to deprive Man-
d of a Benefit afforded them by the Creator, tho' he was
unconſcious that it wou'd be ſubject to ſome Abuſe.
oſe Perſons, therefore, are moſt extravagantly partial to
mſelves, when they affect to be wiſer than their Maker,
to eradicate the Vine, which he himſelf has planted for
Solace of our Labours. Wine is never neglected by any
ions, when they can procure it, either by Cultivation or
nmerce. The uſe of it is equally antient and extenſive,
e it is diffuſed over all the Earth, and aſcends, at leaſt,
igh as *Noah*, the common Father of all Nations.

Counteſs. I ſhould be extremely pleaſed to hear the
tory of the Progreſs of the Vine, and its Juice. The
valier, likewiſe, has an Inclination to be entertain'd
h the Manner of planting and cultivating Vines, toge-
with the Particulars of a Vintage. Let us, therefore,
eated ; the Prior will favour us with the Hiſtory of this
it ; and his Lordſhip, who has cultivated moſt of the
ies we uſually ſee, will acquaint us with the proper
hods of making Wine. The Prior has already told us,
the Uſe of this Liquor is as antient as *Noah* himſelf ;
may we be permitted to believe it was eſtabliſh'd before
Time of that Patriarch ; or is he to be reputed the firſt
ter of the Vine ?

Prior. We may believe, without the leaſt Hereſy, that
Vine is as old as the World itſelf. *Noah* was induſtrious

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* Ovid. Metam.

† Cedren. & Euſeb. Chron.

‖ See the Koran of Mohammed.

to communicate to Mankind the beſt Diſcoveries he had m before the Deluge. With this View he began with the novation of Agriculture; and as he devoted his firſt Care the Plantation of the Vine, and the Extraction of its Jui we may reaſonably ſuppoſe that his Motive to t Proceeding was the Certainty he had acquired of its U ſulneſs.

Chevalier. But would he ever have ſuffer'd himſelf to intoxicated, had he known the Nature of Wine?

Prior. That Accident is no Proof that he was un quainted with the Qualities of the Grape; and we can o infer from it, that its Impreſſions were more potent up him, after a long Diſcontinuance of its Uſe.

But however that Fact may be; the Propagation of Vine was gradually extended, from Land to Land, by Deſcendants; and we find, that one of the principal Pa of the external Worſhip practiſed by moſt Nations, even the remoteſt Ages, conſiſted in offering a Tribute of Br and Wine to the Deity, as an Act of Adoration, and teſtify their grateful Senſe of his Goodneſs, in bleſſing M kind with Life, and the proper Accommodations for Support. This was the uſual Oblation; and when Blood of any Victim was ſhed, that Sacrifice was alw accompanied with a handful of Meal, or a Cake *, a likewiſe a Libation of Wine.

Theſe Feſtivals were celebrated in the open Fields, a generally on ſome remarkable Eminence; and they w annually renew'd, at ſome ſtated Period. The Offering w always ſucceeded by a Feaſt, to which the People aſſemb to eat with a ſocial Joy, as a Teſtimony of their mut Union, and to intimate their regarding themſelves Members of one Family; though in proceſs of time, th Feaſts began to degenerate into Riot and Intemperance.

Such was the Original of Feſtivals of Wine, which ſo antient in their Inſtitution, and were afterwards tranſm ted from *Aſia* to *Europe*, and other Parts of the World.

Chevalier. There were ſome Circumſtances in the *B chanalian* Feaſts, which had no relation either to Feſtiva or Wine. What could be the meaning of thoſe Exclamati of *Io*, and *Evohe*, which were ſo frequently repeated?

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* Mola, was a Barley-Cake, which they placed on the Head of Victim; and from thence the Verb immolare, to ſacrifice, is deriv

nat uſe were the *Thyrſi*, or thoſe little Spears that were orn'd with twining Flowers, and Vine-Leaves? Why did oſe, who celebrated theſe Wine-Feaſts, run from Moun- n to Mountain, and aſſault every Animal they met in eir way; and when they had hew'd them in Pieces, what uld induce them to ſtain their Faces with the Blood? ine never prompts People to ſuch abſurd Actions as eſe.

The original of Wine-feaſts.

Prior. The moſt probable Conjecture I can ſer, with reſpect to the Origin of theſe ex- vagant Feſtivals is This; they, at firſt, were e Inſtitutions of Piety, in Honour to the e God, but were afterwards disfigured by the Circum- nces that were ſuperadded to them.

Be pleaſed to obſerve, Sir, that all Nations in general, ve a natural Deſire to perpetuate the Remembrance of eat Events, by annual Repreſentations of them, on ſome rticular Days; and I ſhall confirm this Obſervation by one two known Inſtances. It was formerly the Cuſtom in *ance*, and it ſtill prevails in ſome of our neighbouring Na- ns, to celebrate *Chriſtmas*, *Eaſter*, and ſome other Feſti- ls, with dramatic Repreſentations of the Myſteries we ore. And tho' the Chriſtian Religion, which entirely ides in the Heart, and in a Life of Vertue and Integrity, rives but little Advantage from theſe tumultuous Practices; ey, however, are always pleaſing to the People, becauſe ey are ſuch Devotions as amuſe them, without any inor- nate Influence on their Paſſions. The *Mohammedans* [*], their Pilgrimage to *Mecca*, where they believe that *Iſh- ael*, the Patriarch of the *Arabs*, formerly reſided, repreſent e Flight of *Hagar* into the Deſert, by ſome particular Ce- monies. They look behind them, and on each ſide; they rch about, with a ſeeming Inquietude, and afterwards preſs a ſudden Joy, as if they had found what they ſought . You may diſcover, in theſe Ceremonials, ſome Traces the hiſtorical Account of the Well, where *Hagar* and her n quench'd their Thirſt. Theſe Examples are ſufficient my preſent purpoſe.

All Antiquity is full of the like Ceremonies, which were ſtituted to preſerve the Memorial of thoſe Events, in

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[*] See Realand's Mohammediſm.

which the People thought themſelves moſt intereſted.
the Times that immediately ſucceeded the Deluge, wh
the Sons of *Noah*, inſtead of diſperſing themſelves, in or
to re-people the Earth, were determined to dwell togeth
and employ'd themſelves in Building, in the Parts adjac
to the *Euphrates*; all the other Regions remain'd unculti
ted. Whole Continents were darken'd with Woods, a
the Animals multiplied without number. After the D
perſion, when each Family began to be eſtabliſh'd in
Lands they had choſen for their Settlements; the ſava
Beaſts iſſued out of their gloomy Wilds, and infeſted
Labours of the Inhabitants, by their Devaſtations; ſo th
the new Colonies were never certain of enjoying either th
Harveſts, or the Fruit of their Vines. To check the Cou
of theſe Calamities, *Nimrod*, the Grandſon of *Ham*, led t
Youths of his Canton to the Chace, clear'd the Country
of the rapacious Animals, and roſe, from *a mighty Hunt*
to the Dignity and Dominion of a Monarch. The Peop
after his Death, not only celebrated ſolemn Feſtivals at
Tomb, and ſung his Praiſes, after thoſe of the Deity; whi
introduced the firſt Degeneracy of their religious Worſhi
but they likewiſe intermix'd theſe Feſtivals with Repreſe
tations of thoſe famous Huntings, which had ſecured Fertil
and Safety to the neighbouring Countries. They uſual
began with Sacrifices and Invocations to the God *Jao*,
Jevoe. They likewiſe carried a Spear, becauſe they we
advancing to a Chace; but this Spear was encompaſs'd wi
Flowers, and Vine-Leaves, becauſe they were only to e
hibit the Repreſentation of a Chace; in conſequence
which, they ran from one Mountain to another, and ga
their Imitations an Air of Reality, by ſhedding the Blood
thoſe Beaſts, they happen'd to meet. Thoſe, who we
cover'd with the greateſt Quantity of Blood, ſeem'd to ha
been pre-eminent in the Chace; and as ſome of *Nimro*
Expeditions were employ'd in hunting down the wi
Beaſts, and others were undertaken by him, with a view
inſtruct the People in the Manner of cultivating Corn an
Wine; it became cuſtomary at theſe Feaſts, to carry, in
pompous Manner, the Van, with which they winnow
their Corn; and a Portion of Wine was diſtributed amon
the Aſſiſtants. No Ceremonies could be better calculated
perpetuate the Memory of *Nimrod*'s Services, and theſe R

rks are, at leaſt, a Sketch of what may be ſaid with re-
on to the Original of Wine-Feaſts.

Counteſs. It is very eaſy to diſcover the Reaſon why they
re always received with univerſal Approbation. While
evotion conſiſts in taking an agreeable Progreſs through the
untry, and is animated with chearful Feaſts, it will never
nt Profeſſors. But let us proceed in the Hiſtory of the
ne.

Prior. This Plant was tranſmitted from *Aſia* to *Europe*;
d the *Phœnicians*, who were early Navigators, eſpecially
ng the *Mediterranean* Coaſts, transferr'd it to moſt of the
es, as well as to the Continent. It ſuceeded to admira-
n, in the Iſlands of the *Archipelago*, and was afterwards
roduced into *Greece*, and *Italy*.

Pliny * was perſuaded, that the Libations of Milk, inſti-
ed by *Romulus*, and *Numa*'s Prohibition to honour the
ead, by pouring Wine on their Tombs, made it evident
t Vines were very ſcarce in *Italy* at that time. They
re multiplied in the ſucceeding Ages; and a Set of *Gauls*,
o had taſted the Liquor, form'd a Reſolution to eſtabliſh
emſelves in the Countries that produced it; and inſtead of
ploying Letters and Exhortations, to engage other *Gauls*
the intended Expedition, they ſent Quantities of Wine
all the adjacent Parts; upon which, the Inhabitants of
eral Provinces immediately quitted the Acorns of their
reſts. The *Alps* were inſufficient to check their Progreſs,
d they extended their Conqueſts along the two Shores of
Po, where they applied themſelves to the Cultivation of
Fig, the Olive, and the Grape in particular. Such was
Motive to their Enterprize; and inſtead of blaming our
nceſtors for having recourſe to Arms, in order to ſecure the
njoyment of Wine, *Pliny* juſtifies their Conduct, by al-
ging the Purity of their Intentions. It has likewiſe been
ought that thoſe *Gauls*, who eſtabliſh'd their Settlements
ong the *Po*, tranſmitted to us the uſeful Invention of pre-
ving Wine in wooden Veſſels, exactly cloſed, and of con-
ing it in that ſtrict Incloſure, notwithſtanding its natural
npetuoſity. Its Preſervation and Tranſmiſſion to diſtant
rts, became more practicable from that Period than it
uld be before, when it was kept in earthen Jars, that

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* Hiſt. nat. l. 14. Sect. 14. Cic. pro Fonteio.

were eaſily ſhatter'd, or in Skins, which were liable to unſew'd, or to grow mouldy.

The Inhabitants of *Marſeilles* and *Narbon* had so Vines, when *Gaul* was conquer'd by *Julius Cæſar*; b the Progreſs of their Cultivation was prohibited by *Domitia* and the *Gauls*, as well as the *Britons* and *Spaniards*, we not permitted to plant them till the Reign of that excelle Emperor *Probus* *. He was ſenſible, that the Promoti of Agriculture ought to be inſeparable from a good Gover ment; and that the Reign of a Prince can never be propi ous, unleſs he be ſedulous to procure Plenty and Tranquilli to the People, of whom he is conſtituted Father. T Plantation of Vineyards in *Britany*, and the Northern Pa of the *Celtic* Provinces, was attended with unſurmountab Difficulties, on the part of Nature; and the Inhabitants thoſe Countries, and even of the *Celtic Gaul*, continued extract their uſual Drink from Barley, for want of a ſuf cient Growth of Vines;

Unthriving Vines compell'd the Celtic *Swain*
To force a Liquor from the bearded Grain †.

But they, at laſt, were planted, by degrees, in all Cou tries where there was any Poſſibility of their Succeſs. S *Martin* planted one in *Touraine*, before the cloſe of th fourth Century. St. *Remi*, who lived at the latter end the fifth, and the beginning of the next Century, left to ſ veral Churches, by his Will, the Vineyards he poſſeſs'd the Territories of *Rheims* and *Laon*, with the Slaves he em ploy'd in their Cultivation. From that time, theſe Plan began to be propagated through all *France*, and they pro bably invited the *Franks* into *Gaul*, as they had already e gaged the *Gauls* to fix their Settlements in *Italy*. Th other *German* Nations, who had no more Conqueſts pursue, endeavour'd to open a Tract of Land in the *Blac Foreſts*, and to plant Vines along the Banks of the *Rhin*

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* Anno Chriſti 282. Vopiſcus in Probo.

† See the Epigram addreſs'd to Beer, by the Emperor Julian, the Anthologia.

——Σε Κελτοὶ,
Τῆ πενίη βοτρύων τευξαν ἀπ' ἀσταχύων.

Hungar

Iungary had likewiſe its Vineyards; and when they afterards were propagated in all Parts, the Inhabitants grew tisfied with their Condition, and were no longer ſollicitous ſecure new Settlements.

Counteſs. Let any one tell us, after this Account, that Vine is only fit to promote Diſorders in the World. *Europe* ever enjoy'd a pleaſing State of Tranquillity, till Vineyards ere planted by its various Inhabitants.

The different ſorts of Wine.

Prior. It will be proper to accompany this Iiſtory of the Vine, with a ſhort Account of s Juice. The different Species of it are aloſt innumerable, and they vary in their olour, their Flavour, their Qualities and Duration. We ay even ſay, that the Sorts of Wine are as much diverſified the Soils that produce them; they, however, may be all omprehended in two Claſſes, namely, the ſweet Wines, nd thoſe, which are dry *.

The ſweet Wines are thoſe, which have a rich and racy lavour, not unlike That of Honey; and their Perfection onſiſts in the Intermixture of an agreeable Bitter with their ative Perfume. *Muſcadine* Grapes † are the fitteſt for theſe rts of Wine, but they require a hot Climate for the Acompliſhment of their due Maturity. The Claſſes of this ine, which are moſt eſteem'd among us, are thoſe of *ituade*, and *St. Laurence*, in *Provence*; of *Frontignan*, in *anguedoc*; of *Condrieux*, in *Lyonnois*; of *Arbois*, in *Burgun*; of *Riveſalte*, in *Rouſſillon*; and ſome other kinds.

Foreign ſweet Wines, are *Tocai*, which grows, in a very nall quantity, on a Hill in *Hungary*; *Verdée*, *Muſcadel*, d *Monteſiaſconè*, which are all *Tuſcan* Wines; the *Greek* ine of Mount *Veſuvius*, which deepens into a golden ellow; and the *Lachryma*, which is a very red Wine, and likewiſe produced by the ſame Mountain, when it ſuſends its Devaſtations of the Vineyards that are near its ummit. To theſe we may add the Wines of *Malaga*, hich are cultivated in the Parts adjacent to *Gibraltar*; toether with thoſe of *Alicant*, and ſeveral other Provinces in ain; nor muſt we forget the Wines of *Madera*, which is n Iſland belonging to the *Portugueſe*, and is ſituated at the

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* Vinum dulce: Vinum auſterum, vel ſeverum.

† Uvæ apiciæ, vel apianæ, ab apibus & mellis ſapore.

Entrance into the Ocean. The beſt *Canary* Wines a brought from the Iſland of *Palma*. *Malmſey*, which is very thick Wine, is produced in the Iſland of *Candy*. T other *Greek* Wines grow in *Chios*, *Tenedos*, *Mitylene*, an other Iſles in the *Archipelago*. The Wine of *Schiras*, *Perſia*, is of the ſame nature.

All Wines have three principal Parts, which are O Salt, and volatile Spirits. The Generality of ſweet Win are incapable of acquiring that juſt Temperament, whic conſiſts in a blended Sweetneſs and Acidity, without th Operation of Fire. In order to accompliſh ſuch a perfe Incorporation of their Oil and Salt, as may correct the Po nancy of the one, by the Sweetneſs of the other, the Grap muſt be expoſed to the Sun, on their native Stock, till the begin to grow dry; and to prevent the Grapes from derivin any future Supply of Juices from the Earth, which woul retard the Completion of this Intermixture, it will be pro per to twiſt the Pedicles, by which the Bunches are faſten' to the Vine. The next Employment will be to preſs out th Liquor, which will then have acquired the Conſiſtence of Syrup; and theſe are the Particulars of the firſt Metho The ſecond conſiſts in expreſſing the Muſt of the Grap when they are ripe, and in boiling it, ſo as to cauſe a Sed ment to riſe to the top of the Veſſel *. This Operatio which is always violent, communicates a Taſte of Fire t the Wine, but it likewiſe qualifies it for a longer Preſerva tion. The third Method is to boil the Juice of the Grapes till it be reduced to half its original Quantity, or even t one third, and it will then thicken into a very tenaciou Syrup.

The Care, which is taken to dephlegmate the Wine, b the two firſt Methods, evaporates moſt of its volati Spirits; in conſequence of which, it always continues in languid State, and its Fermentation can never be perfect becauſe it is unnatural. It is likewiſe impoſſible for theſ Wines to be light and fine, for which reaſon they may b fitter than our Growths for hot Countries, where the Bloo rarified to a greater degree, and requires a ſubſtantial, ather than a ſpirituous Liquor. It is therefore not at all urpriſing, that the *Italians*, and other *Southern* People, who ave been habituated to a vinous Syrup, which is proporton'd to their Conſtitutions, are rather diſguſted than pleaſed with the Vivacity of our Wines.

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* Aut dulcis Muſti vulcano decoquit humorem,
Et foliis undam tepidi deſpumat aheni. Georg. 1.

Or the rich Muſt his timely Care proclaims,
While he refines it o'er the crackling Flames.

Dry Wines, on the contrary, have the Salts and volatile ſpirits for their predominant Parts, and theſe are render'd uch, by a perfect Fermentation, which diveſts them of he greateſt part of their Oil, and ſo attenuates and ſubtilizes he Remainder, as not to deprive the Salts of thoſe ſtimulating Qualities, by which they affect the Tongue with greeable Impreſſions. Of this nature are the *French*, the *Moſelle*, the *Rheniſh*, and ſeveral *Hungarian* Wines, which re more ſalutary to the *Northern* People, by rendring heir Blood volatile, and refining it from all groſs Humours.

Theſe Wines are render'd very defective, by their being ither green or luſcious, groſs or heady. Their luſcious Quality is a great Imperfection, becauſe it diſpirits the Heart, and diſorders the Stomach, inſtead of reviving them vith gay and pleaſing Impreſſions. The moſt excellent Wines are obnoxious to this Defect, as they likewiſe are to headineſs of Fumes; but each of theſe ill Qualities is uſually corrected by a proper Age. Greenneſs, is not ſo nuch the Defect of the Wine, as it is of the Seaſon, which as not ſufficiently ripen'd the Fruit; or it may be owing o the Proprietor, who, perhaps, has been too precipitate in his Vintage. In a word, it is rather an Abortion, than any regular Proceſs of Nature. The harſh and terreſtriel Flavour, is the greateſt Imperfection of all; and it reſults either from the Sun itſelf, or an injudicious Cultivation of the Vine.

Wine may be ſaid to have all its good Qualities, when it proves full, and at the ſame time, ſoft to the Palate; when it preſerves a good Body, in conjunction with a due Lightneſs; and when it retains a bright Colour, a pleaſing Scent, and a delicate Flavour. I fancy, my dear Chevalier, you will be deſirous of obtaining ſuch Wine as This, whenever you have an Inclination to amuſe your ſelf with the Culture of your Vines; and you may be certain of Succeſs, if you will purſue the Directions you will now receive from h Lordſhip.

Count. There are various Methods of forming the Vin and conducting the Proceſs of a Vintage. The Plant itſe is naturally weak, but Nature has ſupplied it with ſma Tendrils, or a kind of Arms, which it claſps around th Bodies that occur in its way, and ſecures itſelf, by thei Aſſiſtance, againſt all Shocks of Wind. We rear it on ſingle Prop in *France*; but it is cuſtomary, in ſome othe Countries, to ſupport it either with a ſtrong Reed, a lon Pole, or wooden Forks. The prevailing Method in *Greec* and *Italy*, is to train up the Vines to Elms, along th Branches of which they extend themſelves without reſtrain and gradually aſcend to the Top.

> * *The next Precaution of his rural Cares*
> *A Range of Reeds, and forked Props prepares;*
> *On theſe the Vines their claſping Progreſs form,*
> *And brave the Rigours of each riſing Storm;*
> *Aſcend the hoſpitable Elm, and ſpread*
> *Their ſwelling Cluſters o'er its verdant Head.*

The *Aſiatics*, who have ſeveral Species of very large Grapes are obliged to diſpoſe their Vines on raiſed Works of Lattice which, by theſe means, are converted into ſo many verdant Pavillions, under which the Natives enjoy the Refreſhment of a breezy Shade. The ſame Soil frequently ſupplies them with Rice or Corn, for their Food, and Wine to crown their Bowls; at the ſame time, that the Growth o Mulberry-Trees ſuſtains their Vines, and nouriſhes the Silk-Worms that array the Natives.

The particular Method practiſed in each Country is thought, by the Inhabitants, to be beſt adapted to their Neceſſities. They would imagine themſelves infinitely prejudiced, were they to act in any other manner; and I confeſs, it would be imprudent to recede from an eſtabliſh'd Cuſtom, unleſs it has been made evident, by repeated Ex-

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* ——Supereſt——
Tum læves calamos & raſæ haſtilia virgæ,
Fraxineaſque aptare ſudes, furcaſque bicornes,
Viribus eniti quarum & contemnere ventos
Aſſueſcant, ſummaſque ſequi tabulata per ulmos. Georg. 2

periments

riments, that a different Proceeding would be more effec- al. But I have obſerved in my Travels, that People ge- rally act by rote, and we have a vaſt number of Vine- rds, the Wines of which would be infinitely better, and ight be kept much longer than they are at preſent, were ey cultivated in a more regular manner.

My Inclination to plant a Vineyard, on ſome Part of my ſtate, made me attentive to the different Methods that are actiſed in our Provinces; and I could not diſcover any at deſerved to be rank'd in competition with thoſe Pre- utions, that have been taken by the Inhabitants of *Cham- ign*, for fifty Years paſt. Their Wine was indeed very cellent, and much eſteem'd before that time, but it anted a ſufficient Body, and was incapable of Tranſporta- on to diſtant Parts; till at laſt, the Natives, by a long ourſe of Experience, acquired the proper Methods of ging it with the Complexion of a Cherry, or the Eye of Partridge; they could likewiſe brighten it into the whiteſt ue, or deepen it into a perfect red. In a word, they proved it to ſuch a degree, that it will now retain all its e Qualities for ſix or ſeven Years, and very frequently for longer ſpace of Time.

The exact Obſervation of this Method in *Cuiſſi*, *Pargnan*, d other Cantons of *Lyonnois*, has produced a Growth of ines, which are eſteem'd by all *Flanders*, as much as thoſe *Burgundy* and *Champaign*.

The Practice of the ſame Method, in different Parts of *urgundy*, has raiſed ſeveral Wines, out of Obſcurity, into general Eſteem; though their Names were not ſo much as nown a few Years ago.

This Method relates to the Vine, the Preſs, and the ellar.

The Culture of the Vine;

The particular Circumſtances, which conſti- te the Proceſs of a Vine, are Plantation, opagation, Pruning, Cultivation, Binding, arthing, and Dunging.

It ſhould never be planted in ſuch ſtrong Soils, as are oper for Corn; for tho' they abound in Salts and Juices, et as they always harden after Rain, the leaſt ſucceeding eat renders them impenetrable to the Action of the Air and un, and prevents the due Refinement of their Fluids. In onſequence of which, they are incapable of Activity and

Perfection, and the Vine either degenerates into a yello Hue, or yields a harſh and groſs Juice. A Soil moderate thin and light ; rather dry than moiſt ; bending into a D clivity, and intermixed with Gravel, or ſmall Flints ; more adapted to the Vine, than the richeſt and moſt fert Land. The Attritions, which theſe ſmall Stones receive fro Culture, may poſſibly cauſe them to diſcharge certain Sal or even Particles of Fire and Sulphur, capable of infuſing a agreeable Vivacity into the Wine. But however the Fa may be, it is certain that all ſoft and light Soils impart greater degree of Delicacy and Flavour to their Productions ; becauſe the Influence and Action of the Air, whic penetrates their Pores, without any Impediment, unfold an diffuſe the volatile Spirits and all the fineſt Principles of V getation, in the moſt effectual manner.

I am not for planting a Vine too near a River, and muc leſs in the Neighbourhood of marſhy Lands ; becauſe the exhaling Humidity, which ſheds itſelf over all the adjace Soil, renders the Morning Froſts more injurious to th Leaves of the Vine ; the Loſs of which is always ſucceede by That of the Fruit.

The Vine is propagated either from Slips, or elſe fro Plants that have already taken root. The former of the are little Sprigs without Roots, and which are cut in Wi ter, from Stocks of a kindly Nature, and are preſerved i Bundles, in a Cellar, till the Seaſon intended for their Plan tation. Towards the End of *March*, theſe Bundles ſhoul be ſteep'd in miry Pits, for the ſpace of eight Days, afte which they are inſerted in the Earth, not in an uprigh Poſition, but ſlanting a little on one ſide ; and three o four of them are ſet in each of the Apertures, which ough to be a Foot diſtant from one another ; and all Redundan cies are afterwards to be clear'd away. The largeſt End o the Shoot muſt be ſunk into the Earth, to a very moderat Depth ; and Care ſhould always be taken to leave an Inc or two of old Wood, that has had two Years Growth.

Rooted Plants are young Stocks, that have grown tw or three Years in a Seminary, the Soil of which ſhould b a little thinner than the Ground, into which they are to b tranſplanted. This Removal is made in *November*, and the Stocks ought to be placed in the new Soil, the momen they are taken out of their native Earth ; becauſe their De acy will be greatly injured by the leaſt Delay. Theſe eminaries ſhould always be inſeparable from an Eſtate in and, ſince they are infinitely uſeful. The rooted Plants egin to be fruitful the third Year, and frequently retain eir Fertility for the ſpace of ſixty Years.

A Vine may likewiſe be renew'd, either in the whole, in part, by means of Layers.

This Operation is perform'd by bending ſuch of the neſt Shoots, as ſhould otherwiſe be pruned off from their ock, and by burying the old Wood in a little Trench ſome length, while That, which is young, riſes above e Surface. When that Part, which has been ſunk in the il, has taken root, the other Extremity is either permit-d to remain on the parent Stock, in order to beautify the ljacent Spot with one continued Growth; or elſe it is cut below the Roots, and this new Stock is then taken out the Earth, to be tranſplanted as occaſion may require.

Another Method of laying Vines, is perform'd by cauſing e Extremity of a fine Shoot to paſs through a little Baſ-et, which is ſunk into the Earth for that purpoſe. The hoot ſo diſpoſed, takes root in the Basket, below which it cut off in the Month of *November*, and is then raiſed ut of the Earth, as ſteadily as poſſible; after which it is anſplanted, with the little Basket, into the intended Situa-on. Theſe are the four Methods, by which a Vine is ultiplied; and we will now proceed to the Pruning art.

This Operation ought to correſpond with the Quality of e Wood, and likewiſe of the Soil that ſupplies it with ouriſhment. If the Earth be extremely thin, and the ood a little weak, it is uſual to leave no more than two three Buds, at moſt, on the young Wood of that Year's rowth; that the Sap, by being confined to ſo ſmall a umber of Buds, may cauſe them to emit Shoots of a mo-erate Strength; but if the Earth be very nutrimental, and e Stock vigorous, three or four Buds are permitted to re-ain on the young Wood to weaken the Action of the Sap, nd to prevent it from ſhooting out too large a Growth of ew Wood.

Vine-Dreſſers, as well as Gardeners, are prepoſſeſs'd ith an old Opinion, that Spring is the only proper Seaſon pruning; and yet they often act inconſiſtently with that

Perſuaſion, ſince they frequently begin to prune in *Januar* in order to prevent their being embaraſs'd by too ma other Works, which hinder their Accompliſhment of th in due time. But with all their Expedition, a great pa of this Operation remains uncompleated, even when t Month of *April* is far advanced. The Sap, which beg to exert its Energy in *March*, purſues its natural Cour and firſt ſwells the Buds, in the Extremities of the Plan which are the very Parts that ought to be retrench'd ; an then, finding the Ends of its Canals entirely laid open b Pruning, it weeps through thoſe Apertures till the Heat b gins to thicken it, and prevent its future Diſſipation. B the Sap would never be waſted, either in Tears or uſele Buds, had care been taken to prune the Vine immediate upon the Fall of the Leaf. This Practice is recommende by Monſieur *de la Quintinye*; to which I may add, th it has been frequently found to be ſucceſsful; and any Perſo may venture to make the Experiment, on ſome ſmall pa of a Vine, in order to be convinced, that thoſe Advantag of an eaſy Culture in Spring, which reſult from pruning i Autumn, are not diſcredited by any Inconvenience wha ever.

March is the Seaſon for dreſſing the Vine, after it ha been pruned ; and this Operation varies agreeably to th Nature of the Plants, which, among us, are of two ſorts namely, the high Growths, which are ſuffer'd to ſhoot u to the Height of five or ſix Feet, in Soils of a moderat Fineneſs ; and the low Growths, which are not permitte to aſcend above three Feet at moſt.

The high Vines are annually dreſs'd ; and, once in fi teen Years, they are lower'd, and laid down in a Trenc two Feet in breadth, and almoſt as deep as the Stock When This has been cover'd with Earth, three or four c the fineſt Shoots, which adhere to it, ſhould be extende on each ſide, and diſpoſed into little Trenches, ſix Inche deep, in order to furniſh as many Layers. The old Woo will reſume a new Vigour, by thus exerting itſelf in a freſ Soil ; and this Operation is perform'd in the Month of *No vember*.

The Method is different, with reſpect to low Vines which are productive of the beſt Wine. They are laid i the Earth every Year, and dreſs'd in ſuch a manner, tha

Stock will ſhoot ſeveral Paces under ground, and freuently as many Fathoms, in a number of Years. Care is ways taken to lower the Stock with as much Equality as oſſible, and to prevent its deflecting into a Curve, which ould expoſe it to the Danger of being cut, in the Culture f the enſuing Year.

When the Vines are found to be too old, they ſhould eiher be rooted up, or grafted. If we have recourſe to the ormer Expedient, the Soil ſhould be ſuffer'd to reſt one ear, at leaſt, before we plant it anew; and it will be roper to ſow it with Corn, which never fails to ſucceed, r elſe with Rye, or ſome of the *March* Grain, in order to in the Earth, and render it more light and proportionable o the Delicacy of the young Plant; which, without this Preaution, would be choak'd by too ſtrong a Nutriment.

If the old Vine ſhould ſtill ſhoot out a Growth of viorous Wood, that is unproductive of Fruit, it will be proer to graft it, inſtead of rooting it up. All the old Wood hould be laid in the Earth, and no more than two or three hoots of that Year's Growth ſhould be ſuffer'd to riſe aove the Surface. The Graft will be more ſucceſsful on heſe, than on the old Wood, which is not eaſily open'd by ncision, and whoſe Thickneſs no way correſponds with he Graft. The Vine is grafted in the Cleft, and the Opeation reſembles That of other Trees.

The Depth, to which high Vines are laid in the Ground, akes it unneceſſary to furniſh them with new Earth; but he low Vines muſt have this Supply every twelve Years, in ery light Soils, and every fifteen Years in thoſe, which are oſt nutrimental. Theſe Plants, however, require but a oderate Quantity of additional Earth; and it is always uſtomary to leave the diſtance of a Foot between each aſket of the ſupplemental Soil; and ſhould This be too rong, it may cauſe the Vines to degenerate, and deprive he future Wine of its due Fineneſs; it would likewiſe cover he Stem with an Incruſtation, thick enough to deprive it f thoſe aerial Influences as ſupply it with the proper Paulum of Fire, and the moſt perfect Juices.

A moderate Quantity of Dung is likewiſe applied to Vines every ſeventh Year, when the Soil is extremely light, nd every twelfth Year, when it happens to be a little more ompact. A Redundancy of this Manure would ſcorch

the Body of the Plant; it would alſo ſhorten its Duratio
and alter the natural Quality of the Wine. Neats-Dung
the propereſt for light Soils; but This muſt have an Inte
mixture of Horſe-Dung, for ſuch Lands as are ſtron
Sheeps-Dung, when its Heat is evaporated, is very ſervic
able to Vines, when they grow yellow, provided it be em
ploy'd in leſſer Quantities than the other Manures. *Novem*
ber is the proper Seaſon for affording Vines this part
their Culture, and it is defer'd till the Month of *Februar*
when the Autumn has proved rainy, leſt the Earth and i
Manure ſhould form an injurious Glew round the Stem,
which they adhere.

The beſt Seaſon for training Vines to their Prop, is whe
the Flowers begin to appear. It is likewiſe cuſtomary
pare the Vine, much about the ſame time; but it is n
very material whether you perform this before, or after th
Plant has been faſten'd to its Prop. Paring the Vine conſiſ
in cutting off the Ends of the Branches, and retrenchin
the little Shoots, which riſe from the Bottom and Sides
the Stock. This Operation ſhould be repeated, in order t
ſecure a copious Sap for the Fruits that are unfolded.

It is altogether as neceſſary to clear away, at two o
three different times, all the Weeds, which ſpring about th
Stems of Vines, and which either impoveriſh, or chill th
Earth. But whether a Hoe, or a Mattock be employ'd o
this Occaſion, the Dreſſer ſhould always be cautious of o
pening the Earth about the Vine, after Rains or Froſts; fo
if this Operation be perform'd after a rainy Seaſon, it har
dens the Soil, and renders it impenetrable to the Air, an
conſequently cauſes ſeveral Stems to become yellow, an
wither away. And if the Earth be ſtir'd after Hails o
Froſt, it is expoſed to ſuch a fatal Chillneſs, as wil
at leaſt, retard the Proceſs of Vegetation, for a conſiderabl
time.

The Vine has three dangerous Enemies, from whoſe Ravages it is difficult to preſerve it.

Inſects injurious to the Vine.

The firſt of theſe is a ſmall Beetle, tha
reſembles a *May*-Bug, in Shape and Colour, but is much inferior to it in Size
This Inſect continues in the Earth, durin
the Winter Seaſon, and faſtens itſelf to the Stems of youn
Vines in particular; gnaws their moſt tender Roots and fre

quentl

uently deſtroys them. It makes its appearance in the Month of *May*, and after it has fix'd itſelf on the green oliage, it preys on their Subſtance, and pierces the Fruit-uds, and the young Shoots, which often proves deſtructive all the new Wood. But this Devaſtation may be preented, in a great meaſure, by ſowing a good Quantity of eans about the Vine; which the Animal will quit for the ew Growth of Leaves, and theſe may eaſily be multiplied a ſhort time. Theſe Leaves, with the Breed of Inſects at reſt upon them, may afterwards be advantageouſly reoved, and burnt around the Stem of the Vine; by which eans, another Diſaſter, more prejudicial than the former, ay be ſeaſonably prevented. Theſe Animals pierce the luſters when they are ripe, in order to inject their Eggs to the Berries; in conſequence of which, Legions of orms will be produced, to the deſtruction of the Grapes, d the total Fruſtration of the approaching Vintage. The un draws all the Juice from the penetrated Grapes, and on reduces them to Powder. The Worms, when they are tiated with their Food, ſeek a proper Retreat, for the Acmpliſhment of their Transformation into *Aurelias*, and afrwards into Beetles. If they happen to diſcover a Heap Compoſt, they chooſe it for their Manſion; and ſeveral erſons place a quantity of it about the Stocks of their Vines. his Manure is the Rendevous of theſe, and a Variety of her Inſects; and if Care be taken to burn it, at the Cloſe of inter, all theſe noxious Animals will be effectually deoy'd, and the Aſhes are almoſt as ſerviceable as the Maure itſelf.

There is likewiſe another ſmall Beetle, ſomething leſs an a common Fly, and cover'd with a green Shell, whoſe urface glitters with the brighteſt Gold. This Animal is urniſh'd with a very long and hard Trunk, indented into veral Saws, which prove very prejudicial to the Grapes, d likewiſe to the tender Leaves; which the Creature rolls ound its Body, and lines them with a ſort of Down for e Reception of its Eggs. In the Winter Seaſon, it either tires into the Earth, or lodges itſelf into a Heap of Comoſt, where it continues buried in Sleep. The Vinereſſers are induſtrious to find out theſe contorted Leaves, hich enfold the Eggs, and they burn them at the foot of e Vine.

'Tis cuſtomary to employ the Hours of deſcending Dew
or the Cool of the Morning, in deſtroying the Snails, th
conceal themſelves during the Heat of the Day; and as th
Animals are an Ingredient in the Ragoûts of *Languedoc*, t
Inhabitants of that Province are very ſolicitous to diſcov
them. It would be in vain for one induſtrious Perſon to a
tempt the Extermination of theſe Inſects from his Vineyar
the Inhabitants of the whole Diſtrict ought to concur wi
him in that Employment, or he will otherwiſe be too mu
fatigued, in deſtroying a hundred Enemies on one Vin
while two thouſand are marching to invade the neighbou
ing Plants.

When the Cultivation has been properly conducted, an
a favourable Summer has cooperated with the Labours of t
Vine-Dreſſer, the Grapes will, at laſt, acquire their com
pleat Maturity, and it will then be neceſſary to prepare f
the Vintage. The Fats are carefully clean'd, and t
Wine-Preſs, with all its Appendage of Veſſels, have the
proper Diſpoſition aſſign'd them, for the enſuing Wor
But the Manner of making Wine, and the Methods, b
which it is duly order'd, ſhall be reſerved for our next Wal
and we will conclude This with a Turn or two in the Vin
yard, where you ſhall be preſented with a View of moſt
the Particulars I have related.

WINE.

DIALOGUE XIV.

The Count. *The* Counteſs.
The Prior. *The* Chevalier.

ounteſs. OUR Preparations for the Vintage are all compleated, and the Vintagers are flocking towards us, to offer their Services on this ccaſion. What Commands has your Lordſhip for them preſent ?

Count. The Quality of the Wine depends on the due erformance of their ſeveral Functions. I inform them, at they muſt bring in the Grapes, at three different Gaerings ; in the firſt of which, they are to chuſe thoſe unches that are moſt ripe, and have the feweſt, as well as e fineſt Grapes, and they muſt be careful to clear away ll the Berries that are green, rotten, or ſcorch'd, together ith ſuch as have been pierced by Inſects. I likewiſe diect my People to cut the Grapes very ſhort ; becauſe the alks are bitter, and vitiate the Wine with a Flavour of e Wood, in proportion to their Length.

The ſecond Gathering muſt be confined to the large ick Cluſters, that are not ſo ripe as the others ; and thoſe hich are green, wither'd, or rotten, ſhould be gather'd ſt. I conſign theſe three Gatherings to as many Preſſings, hoſe difference you may eaſily comprehend.

This firſt Labour, which is of the utmoſt Importanc may be compleated by another Method. I have Vines th vary in their Qualities. Some are planted in a very lig and ſtony Soil, and they yield a bright and fragrant Win others are placed in a more nouriſhing Tract of Land, a they produce a Wine of a greater Body. If I have an I clination to unite theſe good Qualities, in the ſame Win and to meliorate the one, by an Intermixture of the othe I can accompliſh my Deſign, either in the Vineyard, b blending theſe different Grapes together; or elſe in the Ce lar, by mixing the ſeveral Wines I have preſs'd; but if neglect to make this Intermixture, by cutting one Speci of Grapes with the other, I hazard the Loſs of all m Vintage. When the Wines are once made, it will be di ficult to mix them to any degree of Perfection; the wea eſt will change its Complexion, and communicate its D fects to the other, inſtead of being corrected by the goo Qualities of the aſſociated Juice; and one of its leaſt In perfections, tho' far from being inconſiderable, will be diſagreeable cloudy Tinge, accompanied with a Sedimen which will always tarniſh the Beauty of the proper Co lour, and diveſt the Wine of its fine Flavour and Tran parency. But this Effect will be prevented, if I intermi the beſt Grapes of one Vine with the moſt perfect Produc tions of another. The ſeaſonable Combination of the different Fruits, will produce an exquiſite Liquor, that wi have all the Advantages of a ſufficient Body, a Delicacy c Flavour, a Fragrancy of Scent, and a Livelineſs of Co lour; and which may be kept for ſeveral Years, withou the leaſt Alteration. Theſe Obſervations of Mind hav been juſtified by a long Experience; and it was the Know ledge of thoſe Effects that reſult from intermixing th Grapes of three or four Vines of different Qualities, whic improved the celebrated Wines of *Sillery*, *Ai*, and *Haut villiers*, to the Perfection they have now acquired; and in deed they ſeem to comprehend all the Excellencies that ca poſſibly unite, to regale the Palate.

Father *Perignon*, a *Benedictine* of *Hautvilliers*, on th *Marne*, was the firſt, who made any ſucceſsful Attempt t intermix the Grapes of different Vines in this manner; an the Wine of *Perignon*, or *Hautvilliers*, bore the greateſ

Eſtimation

imation among us, till the Practice of this Method be-
me more extenſive.

Chevalier. As I was yeſterday reading *Boileau*'s *Feaſt*, I
nd all the Names your Lordſhip has mention'd, in the
planatory Account of the *Hilly Order*, which, as the
mmentator obſerves, was a Society of Men of Pleaſure,
no were divided in their Opinions, with reſpect to the
erit of the ſeveral Vines that grow on the Hills adjacent
Rheims. I was then deſirous of conſulting the Map for
e Name of *Perignon*, *Sillery*, *Hautvilliers*, *Ai*, *Taiſſi*,
rzenai, and *St. Thieri*, which are introduced in the
otes. But I loſt my labour in looking for the Name of
rignon.

Counteſs. The Author of thoſe Notes has aſcribed the
me of a Man to a Mountain; but This is a trifling Miſ-
e; and, if you pleaſe, Sir, we will return to our Vint-
. I can now comprehend the Reaſon why the Wines
de by Country People, are ſo inferior to thoſe we drink
the Table of Gentlemen, and rich Citizens, tho' they
both produced from the ſame Vines, and the ſame
apes. The Peaſant, who poſſeſſes only an Acre or two
Land, is unable to make proper Selections and Inter-
xtures of Fruit; he makes but one Preſſing, or he thinks
ſhall reform the bad Wine, by blending it with the
od; while he, in reality, injures the good, by inter-
xing it with the bad; but the Proprietor of a large
neyard has an Opportunity of conſidering the different
alities of his Vines, and can form ſuch an Intermixture
will bring his Wine into Reputation.

Count. My Remarks on the Choice and Aſſortment of
erent Grapes, are equally applicable to gray and red
nes.

Chevalier. Your Lordſhip ſpeaks of the Colour of Wine,
if we were capable of forming it in what manner we
aſe. Can a white Grape be made to afford us a Wine
a different Tincture? And is not red Wine the con-
nt Product of a black Grape?

Count. White Wine is, undoubtedly, the natural Juice
a white Grape, but its Strength and other Qualities are
erally very imperfect; it is likewiſe apt to grow yellow,
it degenerates before the next Return of Summer. Theſe
ite Wines grow out of repute at preſent, and are only
uſeful

uſeful in ſome medicinal Preſcriptions; but the grey Wi which has ſo bright an Eye, and reſembles the Complexi of Cryſtal, is produced by the blackeſt Grapes. And Whiteneſs can never be ſo well promoted, as when all t Stocks of white Grapes are rooted up. It was former very difficult to preſerve the Wine of *Ai* longer than o Year. When the Juice of the white Grapes, whoſe Qua tity was very great in that Vineyard, began to aſſume yellow Hue, it became predominant, and created a Chan in all the Wine; but ever ſince the white Grapes ha been diſuſed in the Wines of *Champaign*, That, which gro on the Mountain of *Rheims*, will laſt ſeven or eight Yea and the *Marne* Wine may be eaſily kept for the ſpace four or five. And if the ſame Precautions are uſed, wi reſpect to the Wines of *Burgundy*, they will not begin degenerate in the third Year, and frequently in the ſecon as has often been experienced.

Chevalier. What Methods are taken to make the bla Grapes, which afford a red Wine in *Burgundy*, produce Wine as white as Water in *Champaign?*

Count. The Wine of a black Grape may be tinged wi any Colour we think proper; thoſe, who deſire to have perfectly white, have Recourſe to the following Metho The People, employ'd in the Vintage, begin their Labou at an early Hour in the Morning; and when they have lected the fineſt Grapes, they lay them gently in their B kets, in order to be carried out of the Vineyard; or th place them in large Panniers, without preſſing them in t leaſt, or wiping off the dewy Moiſture, and the azure D that cover them. Dews and exhaling Miſts greatly cont bute to the Whiteneſs of the Wine.

'Tis cuſtomary to cover the Baskets with wet Cloths, a hot Sunſhine; becauſe the Liquor will be apt to aſſume red Tincture, if the Grapes ſhould happen to be heate Theſe Baskets are then placed upon the Backs of ſuch A mals as are of a gentle Nature, and carry their Burden w an eaſy Motion to the Cellar, where the Grapes continue c ver'd, in a cool Air. When the Warmth of the Sun pro moderate, the Labours of the Vintage are not diſcontinu ill Eleven in the Morning; but a glowing Heat makes eceſſary for them to ceaſe at Nine. When the Bask ave been convey'd to the Houſe; and you will natura

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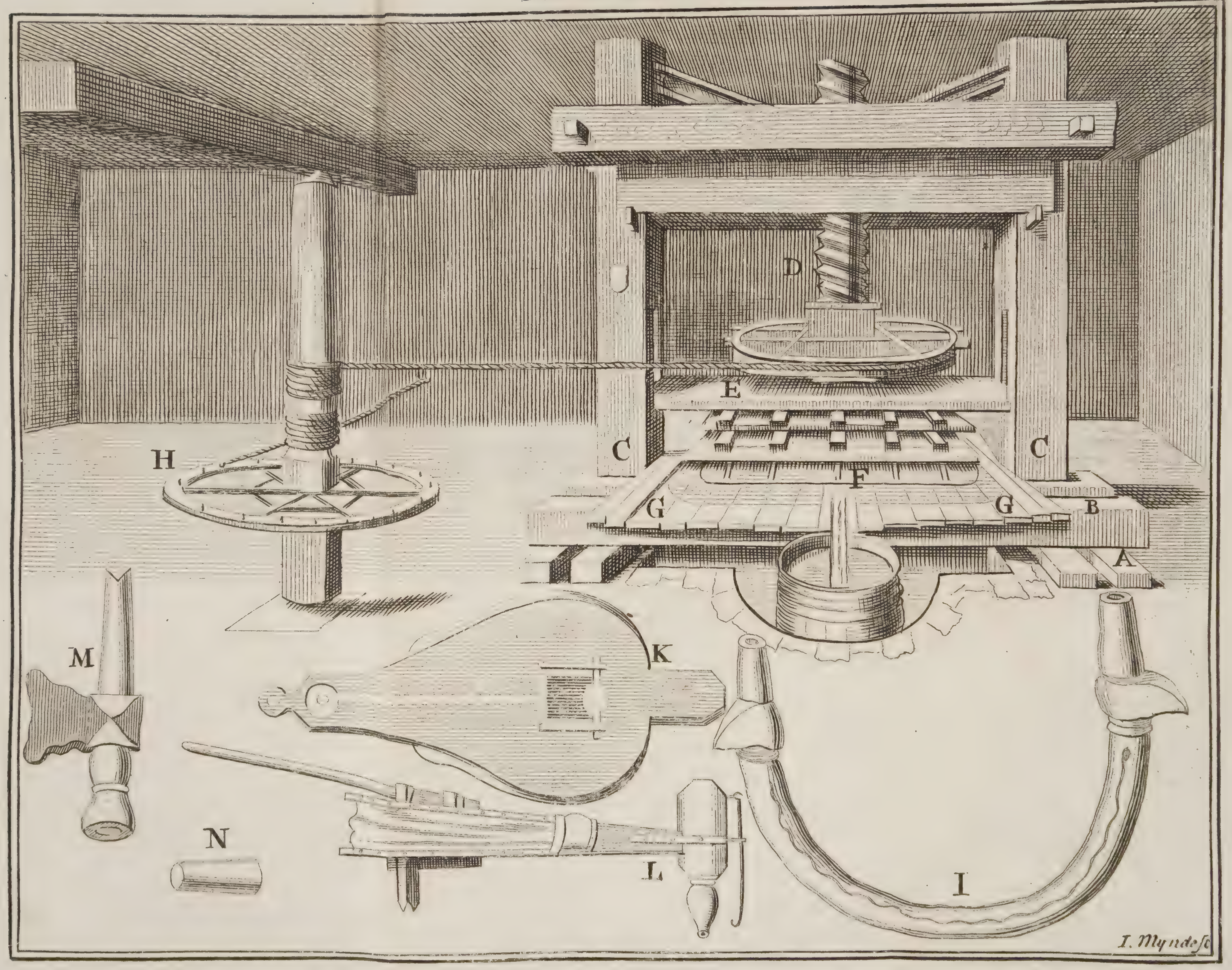
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I. Mynde ſc

gine it ought to be near the Vineyard, that the Grapes
neither burſt, nor be heated in the Carriage; the next
ployment is to throw them into the Preſs, whoſe Uſe
Structure you ſhall have an Opportunity of ſeeing,
en we have finiſh'd our Walk.

Vhen the firſt Preſſing has been diſpatched with Expe-
on, the Grapes that were ſcatter'd from the Heap are
ner'd up, and the Preſs is work'd anew. When this
eration is over, the Extremities of the Maſs are ſquared
by a large cutting Peel, and are then thrown upon the
er Fruit, in order to receive the third Preſſing; which,
n this Circumſtance, is call'd the firſt Cutting. The
e Beams of the Preſs are likewiſe lower'd ſeveral times;
theſe Operations are call'd the ſecond, third, fourth,
fifth Cuttings.

The Wine of the firſt Preſſing is kept apart from the
, when the Fruit happens to be very ripe, and the Sea-
extremely hot; becauſe it then guſhes out in a copious
w, and would be apt to redden, were it intermix'd with
Liquor of the ſecond Preſſing; but this Mixture is uſe-
and ſometimes neceſſary in a Year of moderate Heat,
when the firſt Preſſing has not afforded a large Quantity
Juice. The Wine of the firſt Cut may be ſometimes
nded with That of the two firſt Preſſings; but ſeveral
ſons of great Judgment decline this hazardous Manage-
nt, leſt it ſhould be injurious to the Tranſparency of the
t Wines. The Wine, that is produced after any of the
ttings, is excellently qualified to form a perfect Liquor,
d may be intermix'd with red Wines, if they happen to
made apart.

The Wines of the ſeveral Cuttings are always gradually
den'd, becauſe the Preſs begins to operate more effectual-
on the Skin, which enfolds the Berry; and the Particles,
hich are then diſengaged from it, impart the red Tinc-
e to the Wine. The Heat of the Sun, and the Shocks
the Carriages are ſometimes ſo violent, and produce ſuch
ong Effects on the exterior Coat of the Grapes, that the
uids contain'd in that Coat, and which are then in mo-
n, mix themſelves with the Juice of the Pulp, at the
ſt preſſing; in conſequence of which, the Extraction of a
ine perfectly white, is render'd impracticable, and its
olour will reſemble the Eye of a Partridge, or perhaps

ſome deeper Hue. The Quality of the Wine is ſtill
ſame, but it muſt be either entirely white or red, in or
to prove agreeable to the Taſte and Mode, which now
vail.

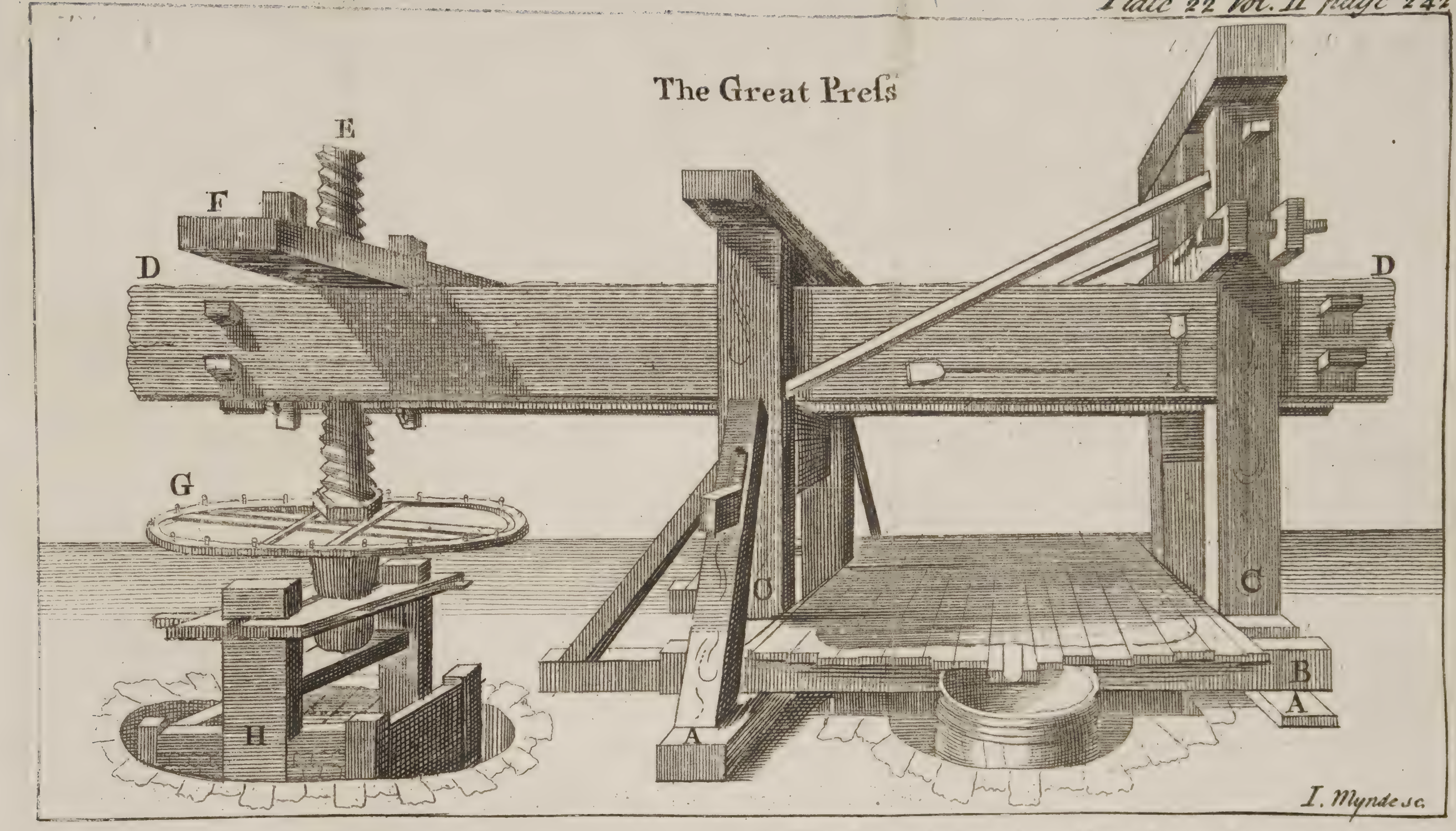
The Wine of the ſixth Preſſing is mix'd with Th
which is extracted from the Refuſe of the Grapes, for U
of leſs conſequence. The Preſſes of *Champaign* ſque
the Fruit with ſo much Violence, that the Marc becom
as hard as a Stone. An ill-flavour'd Brandy is drawn fr
This; but it proves very effectual in aſſuaging the Angu
of Wounds, or Bruiſes, and is likewiſe uſeful on ſevera
ther Occaſions.

We will now proceed to red Wines, whoſe deep Co
plexion, as we are ſenſible by Experience, reſults from
particular Degree, to which the Juice of the Skins is int
mix'd with That of the Pulp. This ſtrong Tincture
imparted to the Wine, by trampling the Grapes, a
throwing them into the Fat before they have been preſſ
The Heat and Spirits, which operate in the Fat,
ſtrongly impell'd againſt the Coats of the Berries that
burſt by being trodden; and this red Subſtance, lodged
the Texture of the Skins, is ſeparated from them by t
Heat, which penetrates every Part, and is then intermi
with the Body of the Liquor, in proportion to its Con
nuance in the Fat; and if we ſuffer it to remain there fo
conſiderable time, we may be certain of obtaining a W
that will be imperfectly red. But as the acid and bit
Fluid of the Stalks, is likewiſe extracted by the ſa
Heat, it is conſequently blended with the other Juice, a
communicates to it either an acid, or a bitter Flavo
which renders the Wine inſupportable, and eſpecially
cold Years.

There are two Expedients for the Prevention of this I
convenience. One of which is, to carry on the Proceſs
the Vintage, in the hotteſt Sunſhine, when the Heat w
produce better Effects, on the outward Coats of the Grap
than could be imparted to them by the Fat, in ſeve
Days; and when they are immediately thrown into th
Veſſel, where they very frequently riſe to the Edge of it,
leſs than four and twenty Hours, there is no danger of the
contracting the Flavour of their Skins.

Plate 22 Vol. II page 242

The Great Preſs



I. Mynde sc.

A.B. *The Base and other Supporters*

C.C. *The Cheeks, or Side Beams*

D. *Great Beams, two in Number, if such can be got as are Strong enough, but there are generally four, or even Six of them.*

E. *The Screw.*

F. *The Nut of the Preſs.*

G. *The Wheel, w.^{ch} by y^{e} Aid of five or Six Men turns y^{e} Screw*

H. *The Cage which is an Assemblage of several strong peices of Timber formed into a Square, and lined with Masonry within. This Cage is ten Foot long and four and an half broad on each Side. It may either be raised out of or sunk into the pit of Maſonry Work from whence it is exhibited as aſcending, in the plate, and it weighs above three thouſand Pounds, and being ſuſpended in the Manner in which it is Repreſented at the end, forms, in a Conjunction with the Screw a Lever of an Immenſe Force, and makes, at one Vat or Stowage Twenty five Pieces of Wine in leſs than four Hours Time.*

When the Seaſon proves cold, and the Vintage cannot
tranſacted in a favourable Sun-ſhine ; it is cuſtomary to
nploy wooden Forks that have three Prongs, and are as
any Feet in length ; and when they are work'd round
e Tuns, into which the preſs'd Grapes have been diſ-
ſed, they faſten upon the Skins that have diſcharged
eir Pulp ; and when theſe are drawn out of the Tun, they
e mix'd with the other Refuſe, that the little quantity of
ice, which remains in the extreme Part of the Stalk of
ch Berry, may not be loſt. The Grapes are then thrown
to the Fat, and they remain uninjured for ſeveral Days,
d aſſume their proper Colour, without contracting the
tter Flavour of the Skins, that have been clear'd away for
e moſt part. I ſay the moſt part, becauſe it will be ne-
ſſary to let ſome of them remain, in order to bind the
rries, which, without this Precaution, would be ſcatter'd
about the Preſs, after the Extraction of the Juice.

The Wine, that has been drawn out of the Fat, is after-
ard intermix'd with the Liquor produced by the two or
ree firſt Preſſings ; but as the Wine, which is afforded by
e following Preſſings, is inferior to the former in its Quali-
s, it will be proper to diſpoſe it apart.

The Wine is now made, and diſtributed into Veſſels,
hich are mark'd according to the Order of the firſt, ſe-
nd, and third Curvée, whether white or red ; and when
has been ſuffer'd to ferment in the Air, for ſome Days,
e Number of which is proportion'd to the Maturity of
e Grapes, and the Temperature of the Seaſon ; the Veſ-
s are ſtop'd in ſuch a gentle manner, as enables the Wine
exhale its moſt fiery Particles, for ſome time. After
hich it is lodged, during the Winter, in an upper Cellar,
om whence it is removed into lower Vaults, at the return
the firſt Heats, and is ſuffer'd to continue there no longer
an the cloſe of Autumn.

Wine of the firſt Year is uſually lodged in new Veſſels,
om whence it ſhould always be transfuſed into ſome other
eſſel that has contain'd Wine of the ſame Species ; and
his is an eſſential Circumſtance, with reſpect to White-
ine, which would eaſily be ſtain'd, by paſſing into a
eſſel, that has formerly been appropriated to Wine of a
fferent nature ; and it will be apt to contract a Flavour of

the Wood, if we pour it into a Veſſel that has never bee uſed before.

It has been a prevailing Opinion, though without th leaſt Foundation, that Wine is beſt preſerved on its Lees for it is certain that nothing can be more injurious to than Lees and Air. If the *Champenois* transfuſe the Wine into different Veſſels, twelve times in four Years, the always chooſe ſuch as are perfectly clean, with a View, undoubtedly, to prevent their Wine from growing vapid and they uſually burn a little Match of Sulphur, half a Inch in Length and Breadth, in the Veſſel they empty, tha it may be fill'd with the Odour, in proportion to the Evacuation, and may likewiſe receive a Steam of Spirits, capab of promoting the natural Fire, and bright Complexion o the Liquor.

As the Goodneſs and Duration of Wine depends, in peculiar Manner, on the Precautions that are taken to refin it from its Lees; much Attention has been employ'd, t find out proper Expedients for its Clarification. The fir of theſe conſiſts in drawing off the Wine, the ſecond i glewing it.

The former of theſe Opperations is perform'd by drawing off the Wine, from its Lees, into another clean Veſſe by the aid of a leathern Pipe, and a Pair of Bellows. A Tub of Wood is faſten'd on one of the Extremities of the Pipe and This is inſerted into the lower part of the Veſſel that i intended to be fill'd; the other Extremity ends in another Tube of the ſame nature, and is fix'd in a large Fountain, at the bottom of the Veſſel that is to be emptied When the Fountain is open'd, the Wine flows out of one Veſſel into another, till the Surfaces of Liquor, in both have acquired an equal Level; after which, the Nozzle o a large Bellows is inſerted into the upper Vent of the Veſſel which is to be emptied; and the Air, which is then forced into it, by the repeated Efforts of the Bellows, creates an equal Preſſure on the Surface of the Wine, and impels it into the other Veſſel, without occaſioning the leaſt Diſorder.

The Operation of glewing the Wine is perform'd by pouring, into each Veſſel, a Pint of Liquor, wherein a Lump of Fiſh-Glew, ſixty or ſeventy Grains in Weight, has been ſteep'd, and diluted, for the ſpace of four Days. This

ewy Subſtance, which the *Dutch* import among us from
rchangel, ought to be very clear and tranſparent. We
ually beat it with a wooden Hammer, in order to break
into Shivers, and that it may diſolve, with leſs difficulty,
a little Wine and River Water, which laſt is more pene-
ating than Spring-Water. A very ſmall Quantity of
ine is added, from time to time, and the whole is fre-
uently work'd about with the Hand; after which it is
aſs'd through a Linnen-Strainer of a moderate Fineneſs;
d they then pour as much of this Intermixture, as will
l three large Glaſſes, or a Pint, into the Cask, and draw
f two or three Bottles of the Liquor. This Glew is
ended with the Wine, by being ſtir'd with a bent Stick,
hich cauſes the viſcous Subſtance to diffuſe it ſelf over the
urface, like a Net; and when a moderate quantity of Air
as been admitted into the Cask through a Vent, the Glew
ill ſink to the bottom, and draw along with it the ſuper-
uous Oil, and generally the whole Maſs of Impurities that
oat in the Veſſel; and inſtead of vitiating the Wine, in
ny inſtance whatever, it gives all its good Qualities their
ll play.

Wines are drawn off from their Lees, in ſome of the firſt
Days of *January*, or when the Froſt has begun to clarify
hem in a natural manner. The drawing off is repeated at
e end of fifteen Days; and if the Wines are grey, they
ught to be glew'd eight Days before they are bottled.

If the Wine be drawn off, towards the end of *March*,
hen the Sap begins to riſe in the Vine, it will froth to
ch a degree, as to whiten like Milk, to the very bottom
f the Glaſs, the Moment it is poured out. Wine will
metimes acquire this Quality, if it be drawn off during
e Aſcent of the Sap in *Auguſt*; which makes it evident,
at the Froth is occaſion'd by the Operation of the Air and
ap, which then act with vigour in the Wood of the Vine,
d likewiſe in the Liquor it produced. This violent
bullition, which is ſo agreeable to ſome Perſons, is thought,
y *Connoiſſeurs*, to be inconſiſtent with the Goodneſs of the
Vine, ſince the greeneſt may be made to whiten into a
roth; and the moſt perfect Wines ſeldom diſcover this
uality.

The Month of *March* is the uſual Seaſon for glewing the
oſt tender Wines, ſuch as thoſe of *Ai*, *Epernai*, *Hautvil-*

liers, and *Pieri*, whoſe chief Conſumption is in *Franc* but this Operation ſhould not be perform'd on ſuch ſtro Wines, as thoſe of *Sillery*, *Verſenai*, and other Mounta Wines of *Rheims*, till they are twelve Months old ; at whi time they are capable of ſupporting themſelves for ſeve Years. Theſe Wines grace the Tables of *London*, *Amſte* *dam*, *Copenhagen*, and of all the *North*. We are likew aſſured that they have paſs'd the Line with impunity ; bu am ſomething incredulous as to that Particular.

When theſe Wines are bottled off, before they ha exhaled their impetuous Particles, they burſt a number Bottles, and are leſs perfect in their Qualities. The prop Method of bottling Wine, conſiſts in leaving the ſpace o Finger's breadth between the Cork and the Liqour, and binding the Cork down with Packthread ; it will alſo proper to ſeal the Mouths of the Bottles with Wax, to pr vent Miſtakes and Impoſitions. The Bottles ſhould lik wiſe be inclined on one ſide ; becauſe, if they are placed an upright Poſition, the Corks will grow dry in a fe Months, for want of Moiſture, and ſhrink from their fi Dimenſions. In conſequence of which, a Paſſage will open'd to the external Air, which will then impart an Ac dity to the Wine, and form a white Flower on the Surfac which will be an Evidence of its Corruption.

Red Wines are ſeldom glew'd, and bottled, eſpeciall during the firſt Year ; the husky Particles, from which th Wine receives its red Tincture, are ſeparated from Month Month, and the heavieſt are ſoon precipitated to the Botto of the Caſk. If you glew and bottle red Wine, it will appear perfectly fine ; but the firſt Motion of the Bottle, whe two Months are expired, or the Admiſſion of the externa Air, when you pour out the two firſt Glaſſes, will immediately raiſe a Cloud from the bottom, which will depriv the Wine of its bright Colour and agreeable Flavour.

No red Wine ſhould therefore be bottled, but ſuch as intended to be drank in two Months; otherwiſe the who Stock will either be loſt, or conſiderably changed in th third Month, and oftentimes ſooner ; either becauſe th bottom of the Bottle is covered with a thick Sediment, whic obliges us to rack off the Wine with Loſs ; or becauſe re Wine of the firſt Year, contracts a diſagreeable Tartneſs, i the Bottle ; or, laſtly, becauſe an oily Subſtance is engen

der'd

er'd in the Wine, which is a Defect that is uſually remedied y ſhaking the Bottle; but it may be cured more effectually the Cask by rolling it about, and by glewing the Wine, elſe by keeping it a whole Year.

When the red Wine has precipitated its Sediment, at the d of about twelve Months, it may be ſafely drawn off into ottles, where it will ſupport itſelf much better than in the ask, becauſe the Pores of This are not ſo contracted as thoſe the Glaſs. The glewing would not be injurious to it, ough it would certainly be unneceſſary, after the Wine has arified itſelf by its own Efforts.

While the Liquor continues in the Cask, its Diſſipations ught to be recruited, every Month, with the beſt Wine in e Cellar, and if poſſible, with That of the ſame Cuvée. s the Wood, that contains it, is very porous, the Wine will ever comport with any neighbouring Odours, ſuch as thoſe Cheeſe, Cyder, Beer, and Perry; for which reaſon the ellar ought to be accommodated as much as poſſible to the enius of the Wine.

Theſe, my dear Chevalier, are the beſt Methods than an be obſerved, in the Making and Management of Wine, and eir Efficacy is juſtified by the Experience of fifty Years.

Prior. I am ſurpriſed, when I conſider to what Length e Induſtry of a laborious People may be extended. The *hampenois* have experienced the reverſe of that Event, which efel the Inhabitants of the *Campania*. The *Falern*, the *Maſſic*, and *Formian* Wines, which *Horace* has ſo frequently elebrated, as the moſt perfect Productions of *Italy*, were oom'd to a ſad Declenſion, within a hundred Years after is Death, by the Miſconduct of the Inhabitants, who eglected the right Method of making them, and thought a rofuſion of thoſe Liquors preferable to their Perfection *. nd though they once were capable of being preſerved a reat number of Years, they now ſhare the fate of moſt *Italian* Wines, which are ſo extremely weak, as to be render'd ſeleſs at the return of the hot Seaſon, unleſs they are boil'd, n order to ſupport them thro' the unſuing Year †. But the nhabitants of *Champaign* have, by a Series of Induſtry, and e Regularity of their Methods, not only given a eputation to their Wines, which were lately ſo little known, but have likewiſe acquired the Art of preſervin their delicate Flavour, much longer than is practicab with the Wines of *Burgundy* and *Guienne*. This is a recen Fact, and it ought to create a generous Emulation in th Proprietors of other Vineyards.

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* Hiſt. nat. lib. xiv. c. 6.

† Andreas Baccius de Vinis Italiæ.

Count. I foreſaw this Event, and expreſs'd my Senti ments of it in a little *Memorandum*, which I formerly mad on the Progreſs of *Champaign* Wine, when I paſs'd throug that Province. When *Philip* of *Valois* was inaugurated, i the Year 1328, the Inhabitants of *Rheims* furniſh'd, for th Entertainment they prepared for the King and his who Court, three hundred Pieces of Wine, partly of the Growt of *Beaune* and *St. Pourçain*, and partly of *Rheims*. Eac two Pieces of this laſt Growth, coſt from ſix to ten Livre The Wine of *St. Pourçain* amounted to twelve Livres eac Cask, and two Pieces of That of *Beaune* came to twent eight Livres.

Prior. The Wine of *Rheims* muſt certainly have bee but little known at that time, or elſe it was extremel ill made, ſince its Price was ſo inferior to That of *Bur gundy*.

Count. In the Reign of *Francis* I. and *Henry* II. th Wine of *Rheims* was generally eſteem'd, and there is Tradition that *Charles* V. *Francis* I. *Henry* VIII. and *Le* X. had each of them a Commiſſioner, who reſided at *Ai* to acquire timely Intelligence of the beſt Growths.

At the Coronation of *Francis* II *. that Monarch receive a Preſent of *Burgundy* Wine, which was ſold for twenty Livres the two Pieces, at *Rheims*; and likewiſe of *Rheim* Wine, that coſt from fourteen to ſeventeen and nineteen Livres the two Pieces; ſo that this latter Wine was dearer at that time than *Burgundy*. When *Charles* IX. was crown'd †, the *Rheims* Wine, that was preſented to him, coſt twenty-eight and thirty Livres the two Pieces; and the Wine of *Laonnois* was dearer than That of *Rheims*.

At the Inauguration of *Henry* III §. they only preſented the Wines of *Rheims*, from fifty-four, to ſeventy-five Livres the two Pieces; and thoſe were the only Growths that were drank at the Coronation of *Lewis* XIII. and they coſt a

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* September 18, 1559.
† May 15, 1561.
§ Feb. 13, 1571.

hundred

ndred and ſeventy-five Livres the two Pieces; but they ere advanced to ſuch Perfection, when *Lewis* XIV. was own'd *, that all the great Lords were deſirous of drinking ; and it has been conſiderably improved ſince that time, rticularly with reſpect to its Duration.

Prior. This Wine is, at laſt, become the only Growth *France*, that can be rank'd in competition with *Burundy*.

Count. If we will be determined by the freſh Palates, the *hampaign* Wine is much preferable to *Burgundy*.

Prior. It is a ſufficient Honour for *Champaign*, to be vanced to the ſame degree of Eſtimation with *Burgundy*; ad it may very well diſpenſe with the Priority. I alays thought *Burgundy* had ſome ſimilitude to a ſolid Unerſtanding, which affects us with laſting Impreſſions; and at *Champaign* reſembled a lively Wit, which glitters more on the Imagination, but is not always ſerviceable to its oſſeſſor.

Count. You will pardon me, Sir, if I cannot altogether pprove of your Compariſon. If you had made the Froth ſome *Champaign* Wines, and the Sallies of a ſprightly Vit, your Parallel; I ſhould have thought it unexceptionae; and ſeveral pleaſant Remarks might be made on this prightlineſs without Solidity. But ſuch a *Champaign* Wine That of *Sillery*, unites all the Vigour of *Burgundy*, with agreeable Flavour, peculiar to itſelf. Good Wine may e conſider'd in the ſame Light with true Wit, whoſe tmoſt Perfection reſults from Solidity, in conjunction with elicacy.

Prior. I prefer uſeful Qualities to thoſe that are meerly greeable. *Burgundy* ſeems to be a more ſalutary Wine an *Champaign*, and will always be triumphant for that eaſon. Its Colour alone declares it to be a Wine of a good ody; and I muſt confeſs I am apt to be diffident of all azzling Appearances.

Count. Moſt People are very willing to believe that this eep Colour, which is ſo much eſteem'd in *Burgundy* Wines, is an Indication of their Wholeſomeneſs; but it is ertain that this Complexion is likewiſe obſervable in the roſſeſt Wines, and it reſults from an Intermixture of the husky Parts of the Grape. Wine will loſe its Fineneſs, proportion to the Quantity of thoſe Particles that are blen ed with it, and will be leſs qualified for Digeſtion. T Gout therefore, and the Stone, with which the Inhabitan of Wine-Countries are ſo frequently afflicted, are Diſten pers hardly known either at *Rheims*, or on the Banks the *Marne*, where the Wines are very moderately c lour'd.

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* Feb. 1610.

Let us form a Judgment of Foods and Liquors, agre ably to the plain Laws of Nature. You yourſelf, Sir, o ſerved very lately, that the Deity, inſtead of ſubjecting to the Uncertainty of Examinations, has enabled us to jud of the Excellence of any particular Nouriſhment, by t Impreſſions of Senſe. This Rule, which is never fallaciou when our Diet is ſimple, and free from Intermixtures, d cides the Pre-eminence in favour of the Wine of *Rheim* and its Scent and Flavour alone are Intimations of its e joying the moſt perfect Qualities. But I have another R mark to offer, which is, that Wines may be made almo as white in *Burgundy*, as they are in *Champaign*, tho' n ſo good; and on the other hand, the *Champenois* preſs Wine as red as the *Burgundy*-Growth, and the Merchan ſell it, either as the beſt Species of *Burgundy*, to the Win Conners, who are the firſt People that are deceived in it or as red *Champaign*, to the *Connoiſſeurs*, who prefer it any other Wine. In a word, if we may judge of the M rit of Wines by the Price, at which they are ſold by th Merchant, we ſhall certainly aſſign the Preference to *Champaign*, ſince the fineſt Species of this Wine is ſold in th Vaults of *Silleri* and *Epernai*, for ſix, ſeven, or eight hundred Livres; when the ſame Quantity of the beſt *Burgun* may be purchaſed for three hundred.

Counteſs. Let me intreat you, Gentlemen, to leave th Controverſy undecided; for we have no Judges, who ar qualified to pronounce a definitive Sentence; but if ther really were any ſuch, it would be prudent in them to le this Debate always ſubſiſt. The equal Pretenſions, tha are form'd by theſe two great Provinces, promote an Emulation, which is advantageous to us. The Partiſans for *Burgundy* and *Champaign* form two Factions in the State; bu their Conteſts are very entertaining, and their Encounter not at all dangerous. It is very uſual to ſee the Zealots o one Party maintaining a Correſpondence with thoſe of the other; they frequently aſſociate together without any reſerve, and thoſe, who were Advocates for *Burgundy*, at the Beginning of the Entertainment, are generally reconcil'd to *Champaign*, before the Appearance of the Deſſert.

But let me adviſe you, Gentlemen, not to be ſo inchanted with the Attractions of Wine, as to treat other Liquors with Partiality, tho' they may happen to be inferior in Merit. This Part of the Country has, for ſome Years paſt, produced a Cyder, which is comparable to That of *Roüen*. It is indeed my favourite Vintage, and I will acquaint you with the Particulars of it, if the Prior will firſt be pleaſed to deſcribe to us the manner of making Beer.

Beer.

Prior. The neceſſary Ingredients of this Liquor are Water, Barley, Hops, and Yeaſt. The Water ought to be light and penetrating; and theſe Qualities are indicated by its Facility of being work'd into a ſtrong Foam by Soap. If it froths but little, we may conclude it to be harſh, and impregnated with Principles that are foreign to its Nature. The Barley ought to be ground, after it has ſprouted; and This may be effected, by ſteeping it four and twenty Hours in Water. After which, it is carried to the Cellar, which is call'd the ſprouting Vault, where it remains, till each particular Grain has ſhot forth, to the Length of four or five twelfths of an Inch. It is then dried in a cover'd Loft, and upon a Floor that has ſeveral Interſtices in it, which ſhould be cover'd with large Horſe-hair Cloths. The Barley is ſpread over theſe, and gradually dried, by a Heat, which aſcends from an Oven placed beneath.

The ſprouted Grains, and likewiſe thoſe, which have not ſhot forth, for both Kinds are ſometimes intermix'd, are afterwards moderately ground, but in ſuch a manner, however, as to diſengage the Meal from the Bran.

The neceſſary Veſſels for making Beer, are large Coppers, and wooden Maſhing-Fats. The former of theſe are incloſed with a Work of Maſonry, and are likewiſe placed over a Brick-Stove, which has the ſame Dimenſions as the Bottom of the Copper.

The Maſhing-Fat ſhould have a real, and a flying or falſe Bottom. The real or proper Bottom, which is the loweſt of the two, deſcends in a Slant towards the middle, where there is a round Opening, which is cloſed up wit a Rudder or Tap-Staff, whoſe Length exceeds the Dept of the Fat. The falſe Bottom is two Inches above the rea one, and is compoſed of Planks, which are raiſed up, i order to be clean'd ; and they have a great Number o ſmall Perforations. On this Bottom, a Surface either o Hops, or the threſhed Ears of Corn, is ſpread to the dept of an Inch. The Malt is then pour'd upon this Surface and the hot Liquor, which is pump'd out of the Coppe into the Maſhing-Fat, deſcends to the loweſt Part of it through a Pipe inſerted between the two Bottoms; afte which, it riſes gradually through the ſmall Apertures of th falſe Bottom, and cauſes whatever Subſtances it meets t aſcend with it, and float on its Surface. It ſhould neithe be too hot, nor too cold ; and its juſt Degree of Heat i diſcover'd by its Ebullition on the Sides of a wooden Peel which is plunged into the Copper for that purpoſe. Th Fire is then immediately taken out of the Stove; afte which, the Liquor is ſhifted into the Fat, and the Malt i ſtrongly work'd about with Maſhing-Poles, in order t blend its Subſtance with the Liquor ; and This is what i properly call'd Brewing.

The Malt is ſuffer'd to remain in the Maſhing-Fat, fo the ſpace of an Hour ; after which, the Pole, inſerted int the Aperture at the bottom, is raiſed up, and the Liquor, which is then impregnated with the fineſt and moſt nutrimental Parts of the Malt, flows through the little Opening in the falſe Bottom, where the Bran and all the groſſer Particles are detain'd, and the Liquor is then convey'd into a Reſervatory, through the Aperture in the proper Bottom.

A Quantity of new Liquor is then pour'd into the Maſhing-Fat, and work'd about a ſecond and a third time, with the ſame Malt, till This has diſcharged all its remaining Subſtance. The Quantity of Liquor, infuſed into the Copper and the Fat, at theſe different Operations, is properly adjuſted, and twelve Buſhels of Malt are allow'd to a Hogſhead of Water.

The Liquor, thus incorporated with the Subſtance of the Malt, is ſhifted, from the Reſervatory, into a Copper, where it is boil'd up with Male-Hops ; eight Pounds and a half of which are allotted to a Hogſhead of Liquor. And n order to redden the Beer, the whole Quantity is ſuffer'd o boil for the ſpace of four and twenty Hours. But if the ntention be to whiten the Drink, it will be ſufficient if it nly begins to boil. It is then cool'd by being pour'd into Backs, which are ſhallow Veſſels, of a great Width and Length. When the Wort becomes luke-warm, it is diſcharged into another Veſſel, and mix'd up with Yeaſt; Pail-full of which is allow'd to every Hogſhead of Liquor. This Yeaſt is the Foam, which the Beer diſcharges out of he Tun, and is preſerved in order to ferment a new Wort. When it has been ſeven Hours in the Veſſel, it begins to work, and the Proceſs of this Operation incorporates the Spirit of the Hops with the Subſtance of the Malt. The Beer is then tunn'd, and the Veſſels continue open for the ſpace of two Hours, that all Impurities may be work'd off, nd the Tun is fill'd up every four Hours.

The Liquor, whoſe Proceſs I have been deſcribing, is call'd double Beer; but if only half the Ingredients I have mention'd, be allow'd to a Hogſhead of Liquor, the Drink of that Brewing will be Ale; and when no more than a third Part of thoſe Ingredients are uſed, they will produce ſmall Beer. If a little Point of Coriander be infuſed, it will have a good effect on the Beer. The Brewers of *Paris*, who make this Drink in great Perfection, are careful to preſerve it in that agreeable Condition, and never thicken it with Honey, or diſpirit it with Sugar. They are likewiſe as cautious not to render it windy and impetuous, with the Shavings of Ivory, or with Ginger and other Spices, as is practiſed at *Liſle* and *London*.

Beer acquires its Perfection in Bottles, if it only remains n them for a few Months; but a longer Continuance will cauſe it to contract an inſupportable Bitterneſs, which ought o be prevented as much as poſſible.

Beer has been uſed at all Times, and in all Countries hat are deſtitute of Vines. Cyder is thought to be a modern Invention; and if we diſcover ſome Traces of it among the *Jews* *, and other Nations, it muſt, however, be ac-

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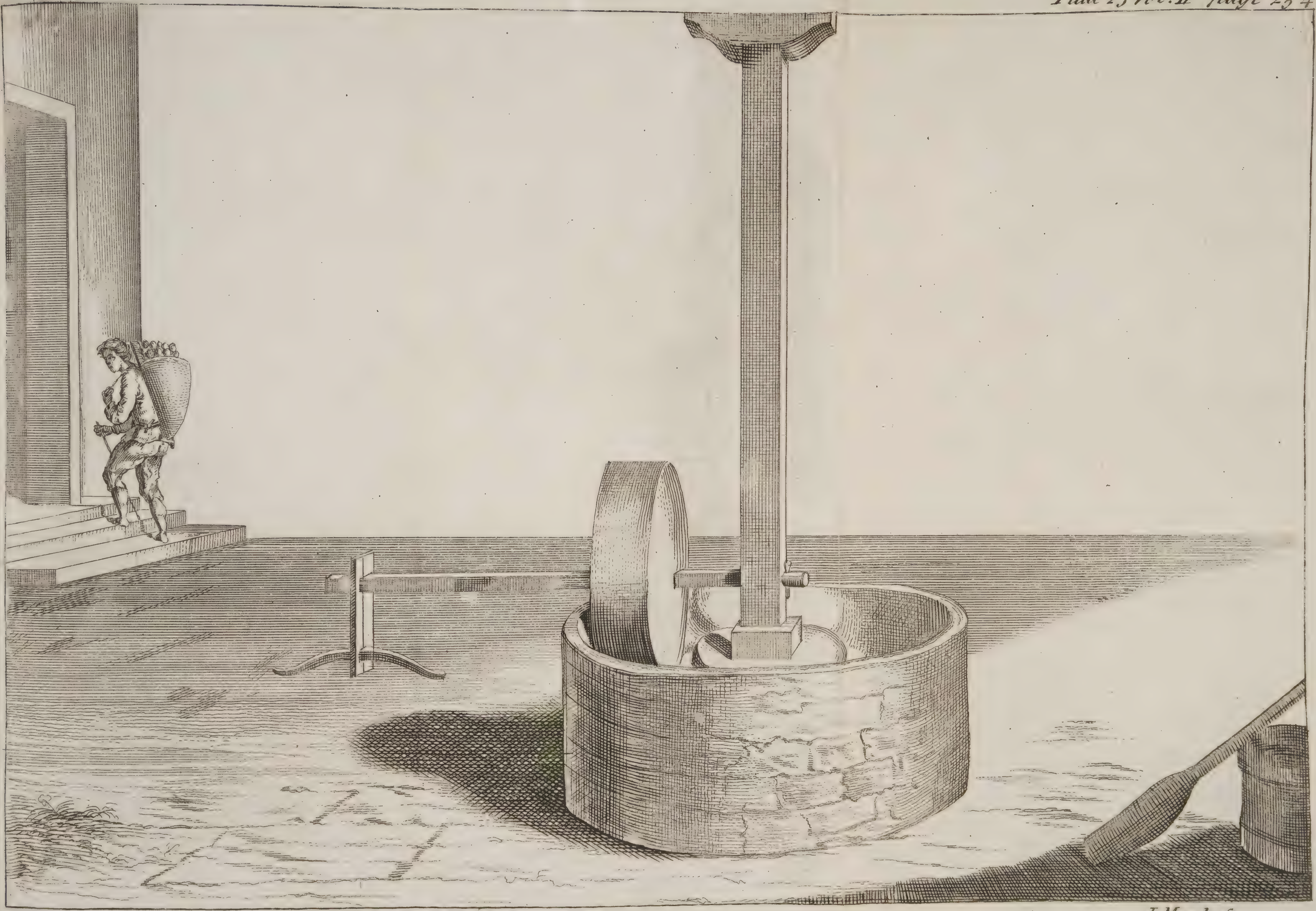
* Sicera, Hebræo Sermone (Shecar) omnis potio nominatur quæ nebriare poteſt, ſive illa quæ frumento conficitur, ſive pomorum ſucco. Hieron. Ep. ad Nepot.

The word Sicera, which in the Hebrew Language, is expreſs'd by Shecar, is applicable to all inebriating Liquors, whether they be made of Corn, or the Juice of Apples.

acknowledged, that it was not ſo univerſal a Liquor as it i at preſent; and that it has been only render'd commo within the three laſt Centuries, in *England* and likewiſe i *Normandy*, where the old Methods of making it, and whic are now uſeleſs, may be ſeen in ſome Monaſteries. Th Uſe of this agreeable and ſalutary Liquor, has, within th ſpace of twenty Years, been render'd much more extenſive in thoſe of our Provinces that are near the Ocean. But th Chevalier's Curioſity, to know the Methods of making Cyder, ought not to be interrupted by a long Hiſtory of thi Liquor.

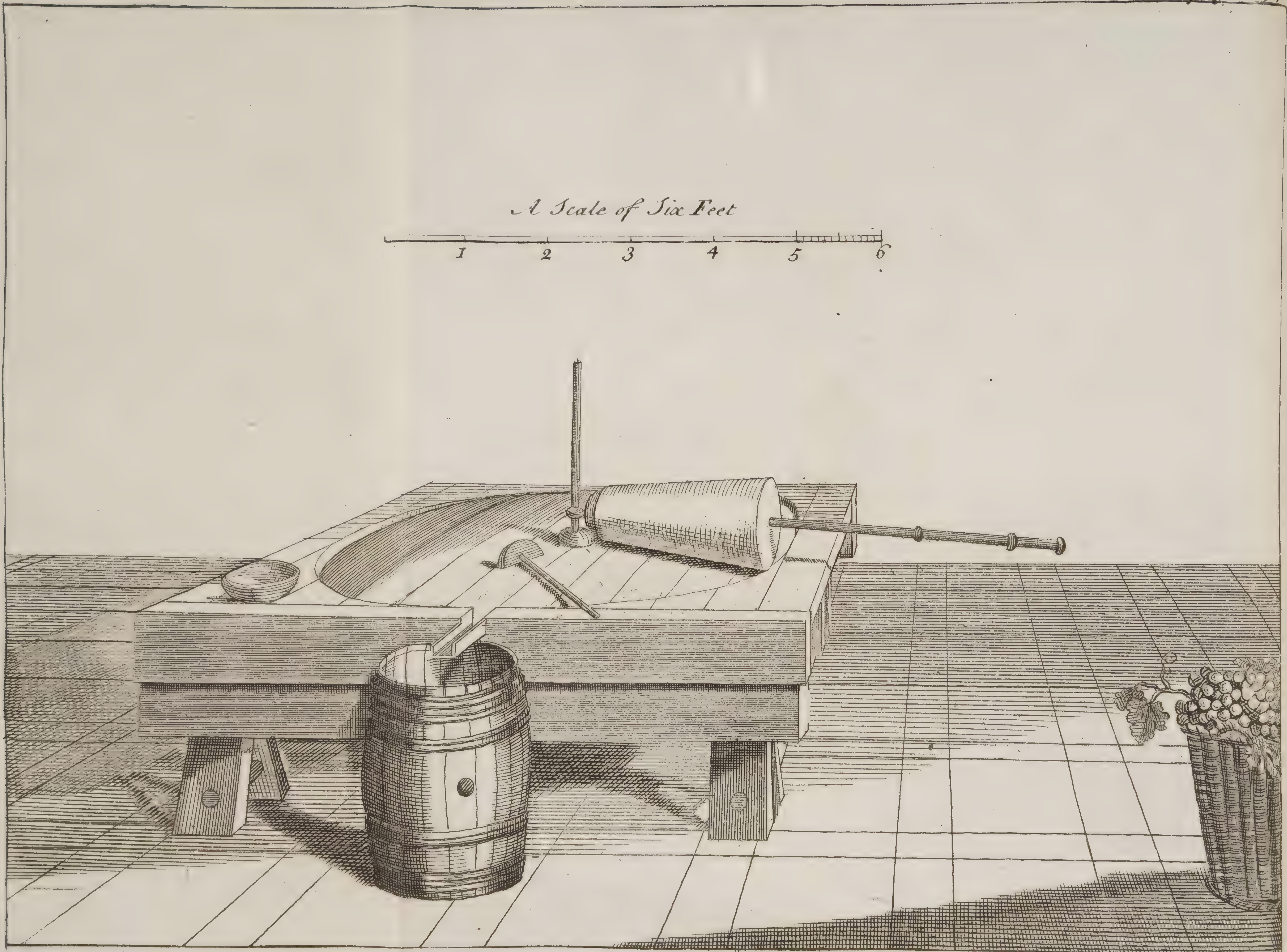
Cyder.

Counteſs. Cyder is the Juice of Apples, but no of ſuch as are eſteem'd for common Uſe; as th Reinette, the Calville, and a Variety of other Species. It is produced from the moſt ſavage Claſſes of thi Fruit, and from thoſe, whoſe Flavour is leaſt agreeable t the Palate. Some of theſe wild Apples are ſweet, other very acid. Theſe latter produce very bad Cyder; and th beſt Method will be either to root up the Plant, or elſe t improve it by Grafting. The ſweet Apples are the only proper Fruits for affording an agreeable Cyder, which neither offends the Palate, nor intoxicates the Head. Th Apples ſhould be gather'd from the Tree; but they may b ſhaken down with Poles, when the luxuriant Growth of a plentiful Year would render the other Method too tediou and expenſive. They are afterwards expoſed in Heaps, t the open Air, till they have acquired their due Perfection; after which, they are carried into the Conſervatory, where each Species is ranged according to its particular degree o Maturity; and in order to be preſs'd, at different times till the Winter be far advanced. The ſound Fruits are firſt bruiſed in a large circular Trough, under two wooden Wheels, placed in an upright Poſition, and whoſe Axle-Trees are faſten'd to a turning Beam, which is drawn round by a Horſe. Thoſe, who are unprovided with an Engine of this Nature, may bruiſe the Apples with Peſtles. When this Operation is compleated, the pulpy Subſtance is convey'd to a Preſs, whoſe Structure correſponds with That o the Wine-Preſs. And to prevent this bruiſed Maſs of Apples from being ſcatter'd from the Preſs, Care is taken to diſpoſe it into a ſquare Bed, four or five Inches thick; this is afterwards cover'd with a Surface of Straw, which ought



J. Mynde sc.

An Apple Mill.


A Scale of Six Feet
1
2
3
4
5
6

I. Mynde sculpsit

A Preſs to ſqeeze Apples or make Verjuice.

o have a ſmall Projection over the Sides of the Heap. A econd Square of the cruſh'd Fruit is raiſed upon this Spread f Straw ; another Lay of which muſt cover the new Square ; and this Diſpoſition is alternately form'd, as long s is judged convenient. Inſtead of Straw, we make uſe of arge Hair-Cloths, which are more adapted to contain the Marc. The great Beams of the Preſs are then lower'd with the Wheel, and the Juice flows into a Fat that is ſunk n the Earth ; from whence it is afterwards ſhifted into Veſſels, where it is ſuffer'd to ferment, for the ſpace of fifteen Days, or three Weeks, and it is then ſtop'd up.

Count. There is another ſmall Preſs, which prevents the rouble of ranging the ſeveral Beds of Fruit and Straw. It s call'd a Box-Preſs, from its ſimilitude to a Box ; and is calculated to contain the ſeveral Fruits that are to be preſs'd, whether they be Apples, Pears, or Grapes. One End of the Box terminates in a moveable Beam, which is work'd by a Wheel, and a Screw, and the Juice flows thro' the Cavities that open in the Side.

Counteſs. If we intend to drink Cyder in its Perfection, and would have it flower in the Glaſs, we muſt wait till it has been properly prepared in the Fat ; and when it begins to be agreeable to the Palate, it muſt be glew'd like Wine, and may then be drawn off in Bottles, which will preſerve it much better, and for a longer ſpace of Time than Casks. There is not much difficulty in the Vintage of this Liquor, and it pleaſes me the more for that reaſon.

Juniper-Wine or Geneva.

Chevalier. Since the reſt of the Company have furniſh'd their Quota's of excellent Liquors, I ought, in juſtice, to make a tender of mine ; and indeed it has two Qualities that are greatly to be valued. It is very wholeſome, and occaſions little or no Expence. This Liquor is extracted from Juniper-Berries, and it may be call'd the Poor's Wine, though it is likewiſe uſed by Perſons of very affluent Fortunes. It is made with ix Buſhels of Berries, and three or four handfuls of Wormwood. Theſe Ingredients muſt be infuſed in eight Gallons and four Quarts of Water, for the ſpace of a Month ; after which, we may let the Marc ſink to the bottom, and rack off the Liquor, which is render'd much better and more palatable by Age. It was either invented, or brought to perfection, by the Count *de Moret*, Son of *Henry* IV. and whoſe Name has occur'd to me in Hiſtory. This Prince who was thought to have been kill'd in the Battle of *Caſtelnaudari*, paſt the remainder of a very long Life in a private Retreat, where he lived in a very devout manner, with a few Solitaries; and always enjoy'd a perfect State of Health which he acquired by the Labour of his Hands, and the Uſe of this Liquor.

Prior. All Nations, who have been denied the Uſe of Wine, either by Nature, or their Laws, have invented different Liquors. The *Indians* extract an excellent Juice from the Palm-Tree, but it loſes its Goodneſs in a few days. The *Turks* have ſome particular Paſtes, which they dilute with Water, in order to render this Fluid more agreeable or nutrimental. The *Americans* diſſolve the Paſte of their Cocoas in Water. The *Lithuanians*, the *Poles*, and the *Muſcovites*, who have Plenty of Honey, ſteep it in Water which they boil to a moderate degree, and then ſuffer the Mixture to ferment in the Sun, by which means it becomes a very ſtrong and pleaſing Liquor, and is commonly known by the Name of Mead. The *Engliſh* extract Liquors from Raſpberries, Gooſeberries, Strawberries, and a Variety of other Fruits; but their favourite Liquor is Punch, which is a Compoſition of two thirds of Brandy, and one of common Water; to which they add a proper Quantity of Sugar, Cinamon, powder'd Cloves, and a Slice of toaſted Bread; Milk likewiſe, and the Yolks of Eggs, are frequently intermix'd, to thicken the whole*.

Chevalier. Brandy and Milk! This ſurely is a ſtrange Compoſition.

Prior. We reproach them for their Mixture of Liquors and they are as ſevere upon us, for the Diverſity of our Ragoûts.

Count. What makes me moſt diffident of the Wholeſomeneſs of Punch, and much more of other ſtrong Liquors, is the Intermixture of Brandy, which is their conſtant Baſis, and a very pernicious one, in my opinion.

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* The Author might have informed himſelf better, in what manner Punch is made in England; but This is not the firſt time that prepoſterous Cuſtoms have been aſcribed to our Nation by French Fancifulneſs.

Chevalier. Brandy is however extracted from the ſtrong-ſt, as well as the fineſt Parts of Wine; what injurious Conquence, therefore, can reſult from the Uſe of it?

Count. The Wine fetters theſe ſtrong and active Spirits; nd they are likewiſe corrected by the other Principles, hich accompany them. Thoſe Perſons, who are acquaintd with the Structure of our Bodies, and the Force of theſe rinciples, have been induſtrious to diſtil and blend them gether, in ſuch a Proportion as is beſt adapted to our Orans. But when the moſt active Parts of Wine are extractd by the Violence of Fire, which ſeparates them from the her Particles that would moderate their Impetuoſity; they uſt be conſtantly productive of Diſorders, and inflammary Effects. They may indeed be ſerviceable, when uſed a medicinal manner, like ſome other chymical Diſtillaons; but a frequent recourſe to theſe violent Liquors, tho' e Quantity be never ſo inconſiderable, muſt infallibly vitie the Blood, and impair the Organs themſelves. And is Obſervation has been juſtified by too many fatal Inances.

WOODS.

DIALOGUE XV.

The Prior. *The* Chevalier.

Chevalier. DON'T you obſerve, Sir, that, beſide the agreeable Freſhneſs we experience when we enter theſe Woods, we ar likewiſe ſenſible of a pleaſing Emotion, which I am unabl to deſcribe; and whoſe Cauſe you undoubtedly can aſſign much better than my ſelf?

Prior. The Softenings, which the Light receives from th branching Verdure; the Beauty and Height of theſe loft Trees; and the ſolemn Silence, that reigns all around us exhibit an Air of Novelty and Grandeur, which immediately ſtrikes the Imagination, and inſpires it with a contemplative Sedateneſs.

Chevalier. This is certainly the propereſt Scene in th World, for a Converſation on the Hiſtory of Nature; but am apt to think the Foreſt itſelf can hardly furniſh us with any thing extremely curious. The ſame Objects are unfolded to our View, from one end to the other; and th Eye can only wander over a Profuſion of Leaves an Wood.

Prior. Let us endeavour to conſider this Thicket in al the different Forms it is capable of aſſuming, and in all th various uſes that can be derived from it. It may, perhaps furniſh us, like other Parts of Nature, with new Motives to

Admiration and Gratitude. We will begin with the tall tems, which this Foreſt rears into the Air; and let us ompare them with the humble Plants that are cultivated in he Plain below. How different is this Garden from ours! Ve think theſe latter very ſpacious, when they contain a ew Acres of Earth; but This extends itſelf over a whole Country. Its Productions are without number, and their Dimenſions are almoſt immeaſurable; and yet all theſe hriving Stocks riſe at the diſtance of a few Fathoms from ach other; and are frequently ſeparated by the ſcanty ſpace f four or five Feet. Who form'd the Plan of theſe mighty Works, and conducted them to their ultimate Perfection? What Gardener charged himſelf with the Plantation of this mazing number of Trees? Who had competent Abilities or pruning their redundant Growths, and affording them eir ſtated Refreſhments of Water? My Curioſity equally rompts me to enquire into the Origin of this immenſe Garden, and the Uſes, to which it was ordain'd.

Man is not the Being, to whom the Plantation and Culture f Foreſts was conſign'd. Corn, indeed, and Legumes, ogether with the Vine, and a few low Trees, have been ubjected to his Induſtry, in order to exerciſe and employ im in a uſeful manner. The Plants he cultivates are proportion'd to the Minuteneſs of his Stature. Their Aſcent is ery moderate, that they may be acceſſible to his Hand hat forms them. But the Deity has reſerved the Trees of he Foreſt to himſelf; and tho' he alſo gives Exiſtence and Growth to every other Plant, the Foreſts alone may be conſider'd as his Garden. They have been planted by no Hand but his, and he is the only Being, who affords them heir Cultivation. He diffuſes their minute Seeds over the urface of a whole Country. His wiſe Precaution has furniſh'd the generality of them with Wings, that they may e wafted, with more facility, by the Winds, which conduct them to various Soils. We ſhall be ſufficiently convinced of theſe Truths, if we caſt our Eyes on the Seed of Linden-Tree, a Maple, or an Elm. He alone draws rom them thoſe vaſt Bodies, which riſe into the Air with uch an Aſpect of Majeſty; none but himſelf faſtens them with ſo much Strength in their ſeveral Situations; and ſupports them, in that Diſpoſition, thro' a Series of many Ages, in oppoſition to the Winds, which he diffuſes over the

Earth. He alone ſelects genial Dews, and ample Rain from his Treaſures, to array his Trees with an annual Verdure, and to impart a Species of Immortality to thei Growth. We may wander, even now, through tho Woods where the *Druids* gather'd the Miſletoe of the Oak amidſt the Solemnity of their Superſtitions, above two thouſand Years ago. We can ſtill behold the Foreſt of *Ardennes* which cover'd a great Part of *Belgic Gaul*, many Ages before the Birth of *Julius Cæſar*. The Black and th *Bohemian* Foreſts are the Remainders of the *Hercinian* which formerly ſtretch'd over all *Germany*, and was extended as far as *Tranſylvania*.

Chevalier. It is certain that theſe vaſt Foreſts were no planted by Men; for we are only ſkilful in cutting them down. Their Original, however, is eaſily diſcover'd ſince they are produced by the Earth itſelf. If we neglect t cultivate any particular Tract of Land, it will naturally ſhoot up a Growth of Wood.

Prior. The Idea we form of the Earth's Fecundity i very confuſed, and it not only diſhonours Truth itſelf, bu weakens our Gratitude, by allowing the Ground that Prolificneſs, to which it has no Pretenſions. We have already obſerved, that all the Productions of the Earth ar organized Bodies, which ſhe has no Power to faſhion, an which have been form'd, from the Beginning, by a Determination of the Deity, altogether as expreſs as That by which he created the Earth itſelf. A Seed, which reproduce any particular Plant, is, itſelf, a Plant in Miniature, which bears a perfect Similitude to the preceeding Tree, and is only diſengaged from its Covering, and gradually enlarged in its Growth. I may add too, that the Earth is not only incapable of forming Plants, but is likewiſe unqualified to nouriſh them. She is appointed to receive, and diſtribute the nutrimental Juices they need, and may, in that Senſe, be call'd fertile; but ſhe neither furniſhes thoſe Juices from any Subſtance of her own, nor imparts any Increaſe o Growth. The Earth, of itſelf, is a dry and barren Maſs o dull Matter, which receives, from other Sources, the Aliment and Juices it communicates to Animals, and whatever elſe is ſuſtain'd by their nutritious Qualities.

The repeated Supplies of Leaves, Flowers, and Seeds,
ith which the Trees are annually array'd, and which
ey afterwards caſt off; together with the perpetual Diſſi-
ations of the Sap, whoſe Freſhneſs we experience, not only
Foreſts, but even in a Timber-yard, and for a conſidera-
e time after the Wood has been fell'd; are ſuch Conſump-
ons, as would exhauſt the Earth in time, were they fur-
ſh'd from her own Subſtance. If the repeated Loppings
Thickets, and Foreſts, were to be all thrown together for
me Ages, they would form Piles as high as the Mountains
emſelves, on which they were cut; and if the Earth
her produced the Woods, or nouriſh'd them from her
wn Bowels, theſe would be all conſumed by degrees. The
ountains, by being conſtantly undermined, and waſted
the Proceſs of ſo many deep Roots, would be inſenſibly
miniſh'd. Their Evacuations would ſink them from
ge to Age, and the ſmaller Eminencies would have been
d level with the Plains long ago.

The Earth, which nouriſhes our Foreſts, ſuſtains no
ſſipation of its Subſtance, but continues undiminiſh'd,
e the Earth in Boxes of Orange-Trees. Let two hundred
unds of Earth be depoſited in a Box, and let a Tree be
en planted in it; this Maſs of Earth, if it be weigh'd at
e end of three or four Years, will prove altogether as
avy, as when it was firſt placed in the Box.

Chevalier. And yet the Orange-Tree has acquired con-
erable Acceſſions of Growth; and has likewiſe produced
aves and Fruit, two or three Times. Theſe have a
eight proportionable to their Subſtance; from whence
en do they receive it?

Prior. Since the Earth continues as heavy as it was at
t, the Materials of theſe Growths muſt be imparted
m other Sources. The Soil itſelf only contains the
nt, and conducts to it the Juices that nouriſh it. Theſe
ghty Foreſts, therefore, are planted by a Power that is
ays active, and by a Wiſdom that never ceaſes to be
pitious, and by which they are ſupported without our
l. This omniſcient Power perpetually impregnates the
and the Earth with Salts and Water; Oil and Fire;
ether with all the Principles, either ſimple or intermix'd,
t are neceſſary to each particular Species.

Chevalier. I now can comprehend in what Senſe th Earth may be ſaid to be prolific. But the Deity, fron whom this Fertility ſprings, would certainly have acte with more Beneficence to Man, had he form'd large Foreſt of Fruit-Trees, inſtead of multiplying ſuch vaſt Growth of barren Woods.

Prior. The Trees of the Foreſt are call'd barren, only in compariſon with thoſe, whoſe Seeds are cover'd with a Subſtance that preſerves them, and proves nutrimental to us but they are ſo far from being juſtly chargeable with Sterility, that, on the contrary, they furniſh us with inexhauſtible Sources of Riches and Accommodations, which ar much ſuperior to thoſe we derive from Fruit-Trees.

Chevalier. Foreſts may afford us a Shade for our Refreſhment in Summer, and Wood to warm us in Winter ; bu I am not conſcious of their procuring us any other Advantages.

The Uſefulneſs of Foreſts.

Prior. They are uſeful in all Parts. Let us firſt enquir into the Functions of their Leaves, and the conſider the Nature of their Seeds ; afte which we will deſcend to their Barks an Roots, and our Examination ſhall conclude with the particular Uſes, to which their Wood is applicable.

The Uſefulneſs of the Leaves.

The Leaves are very uſeful on the Tree, and likewiſe continue to be ſo, after their Fall. While they remain on the Tree, they exhibit one o the greateſt Beauties in all Nature to our View The Verdure of our Fruit-Trees is infinitely inferior to That of Foreſts. This accommodates Mankind and various Tribes of Animals, with a Freſhneſs equally ſalutary and delicious. It likewiſe imparts Life to the Trees themſelves, ſince, while they extend their Roots into the Earth, that their Fibres may extract the Juices i contains, they likewiſe expand their Branches into the Air that the Spiracles of their Leaves may imbibe the ſpirituou and warm Particles, which inſinuate themſelves into thoſ Apertures, and invigorate the Courſe of the Sap, to the Extremities of the Roots ; and perhaps ſupply the Tree with the greateſt part of the Sap itſelf ; ſince the Probability of this Fact ſeems to be ſufficiently eſtabliſh'd, by the ſpeedy Decay of the generality of thoſe Trees that wan

Air

ir, eſpecially on their upper Parts. For when they no
nger receive any new Supplies of Juice, from an Influx
Air, they ſoon languiſh and die, for want of that part
their Nouriſhment, which may poſſibly be moſt neceſſary
their Vegetation.

The Fall of the Leaves.

When the Air is ſo compreſs'd by Cold, as to be incapa-
e of exerting its Elaſticity in the Sap, this
uid begins to be inactive; and if its Progreſs
not intirely diſcontinued, it, at leaſt, flows
a very languid manner. The Leaves, which no longer
ſſipate their Juices, by ſuch a Tranſpiration as was per-
rm'd in the Summer-Seaſon, begin to thicken, and are at
t diſcharged from the Tree by their own Weight, or the
ſt Gale of Wind, which then whirls them away. They
ver the Earth, and rot around the Stems of the Trees, or
der the Feet of Animals. One would imagine them to
then loſt, and entirely uſeleſs; inſtead of which, the
rth is enrich'd by their Putrefaction. The Rain diveſts
em of the remaining Salts, and theſe are conducted by the
uid, to the Roots, where they are abſorbed by the ex-
nded Fibres. This Surface of decay'd Leaves, preſerves
e Roots of young Plants, and defends them from the in-
ious Effects of cold Winds. It likewiſe covers all the
eds, and ſurrounds them with ſuch a genial Humidity,
enables them to ſhoot forth, as effectually as if they had
en planted in the moſt kindly Soil, and were cultivated
the Labours of Man. The Peaſants burn great Heaps
theſe Leaves in the Winter-Seaſon, and reduce them to
hes that are proper for opening ſtrong and impliant
ls.

The Seeds, which ſeem to be as much the Sport of the
inds, as the Leaves, are only diſperſed more effectually,
order to multiply the Species; and when they have ren-
'd us the important Service of perpetuating our Foreſts,
y are uſeful to us in many other Particulars.

The Uſefulneſs of the Seeds.

The Acorns of all the different Kinds of Oaks, the Maſt
the Beech, and a Variety of other Seeds,
the favourite Food of Swine and wild
ars. The Berries of innumerable Trees
Buſhes, diſpenſe a ſeaſonable Nouriſh-
nt to the generality of little Birds; and though we cul-
ate, in our Gardens, the Trees, which afford the *Cornil*

Berry, the Nut, and the Filberd ; the Foreſts are alwa productive of the Cornil, the Nut, and the Hazel Tree The Walnut-Tree, which delights in a free Air, is n adapted to a Garden, where it injures all the Plants aroun it ; nor to a Wood, which choaks its natural Growth ; it therefore ſuffer'd to grow in the open Country, where requires as little Culture as the Foreſt-Trees ; but its Pr ductions are preferable to moſt Fruits, as well with reſpe to the Table, as to the Oil extracted from them, and whic accommodates the Poor with a frugal Light, and beſtow Immortality on the Works of Painters, whoſe Colours ſtrengthens, and blends together in an admirable manner.

I ſhall not take any Notice of Cheſnuts ; ſweet and bitter Almonds ; or a number of other Nuts that are ver common among us ; and ſhall only enumerate the princip Species of foreign Nuts, which are in greateſt Eſtimatio at preſent.

The Nutmeg.

Of this Claſs is the Nutmeg, which is exceedingly valued for its ſalutary Heat, an its aromatic Odour. It is the Seed of Tree, which grows in the Iſland of *Banda*, and ſome othe of the Eaſtern Ocean, where the *Dutch* have monopolize the Spices, either by Right of Conqueſt, or by paying the Inhabitants ſuch Penſions as are more beneficial to the than the Produce of their own Trees. The Nut is, at fir cover'd like our Nuts, with a thick Coat, which gradual opens of itſelf ; and afterwards, with a kind of She which enfolds the whole Nut. This Shell, which call'd Mace, is much eſteem'd for its excellent Scent an medicinal Qualities. The Nut is ſent over to us, either a Confection, or dried, and diveſted of its Mace ; and it uſed as an Ingredient in Seaſonings, as well as in Preſcriptio of Phyſicians.

Coffee, whoſe good Effects are univerſally eſteem'd, the Berry of a ſmall Tree, which formerly was known no Country but the Kingdom of *Yaman* in *Arabia* ; and the Seeds, which are found in the Heart of the Fruit, a qualified to clear the Head, and relieve it from Sleepine when they have been infuſed in Water ; the *Arabian* Mon are ſaid to have been the firſt, who made uſe of them, th they might be enabled to perform their nocturnal Devotion

withou

thout Drowſineſs. This artificial Drink came eaſily into ute, among thoſe Nations that frequently invent new quors to regale them inſtead of Wine, which the Law of *hammed* has prohibited among them. Some *Turkiſh* octors at firſt oppoſed the Introduction of this Liquor, and clared it to be too ſpirituous, and almoſt as inebriating as ine itſelf; but the *Mufti* ſoon removed this difficulty, d Coffee was vindicated from the Imputation of any vi- us Quality, and was allow'd to be a lawful Liquor. It as then publickly drank in *Conſtantinople*, and *Cairo*, om whence it has been tranſmitted to us, about ſixty ears ago.

Chevalier. I am ſurpriſed that we don't ſow this uſeful d popular Seed, in our *Southern* Provinces at leaſt.

Prior. It will not ſucceed either there, or in any other rt of the Kingdom; becauſe it ought to be ſown imme- ately after it has been gather'd. It was formerly ima- ned, and ſeveral People are ſtill perſuaded, that the *Ara- ans* of *Mokba* drench'd the Berries in a Brine, or ſome ivious Liquor, before their Exportation; to prevent their ing ſown with any Succeſs, and that they themſelves ight not be deprived of the Profits of this Plant, by its opagation in other Regions. But ſince ſome of the Trees ve been tranſported to the Iſle of *Bourbon**, as well as to *tavia*, and *Holland*; and likewiſe from *Holland* to *ance*, where they have been cultivated in a ſucceſsful anner; we have been convinced, that the Seeds of this ant will never proſper, if their Plantation be delay'd ever little. Thoſe that were gather'd at *Amſterdam*, and ſent *Paris*, were unſucceſsful; but all ſuch as were gather'd her at *Amſterdam*, or in the King's Garden, from little ees, which had been planted there, proved very thriving, hen Care was taken to ſet them the Moment they were ther'd.

The Coffee-Tree may be ſeen in the Royal-Garden, here its Height does not exceed five or ſix Feet, and its em is about an Inch in Thickneſs; but it riſes to the ight of forty Feet, in *Arabia*, and *Batavia*, tho' its hickneſs ſeldom exceeds five Inches. It is always cover'd with Flowers and Fruit. It ſhoots out, through th whole length of its Stem, a Growth of Branches, which ar always exactly oppoſite to each other, and in differen Pairs, one of which croſſes the other. The Leaves, whic reſemble thoſe of the common Laurel, are alſo ranged i Couplets; at the Bottom of theſe ſpring the fragrant Flower Branches, which have a near ſimilitude to thoſe of the Ja min, and have five Chives in their Center. The Berry o Fruit, which appears after theſe, is not much unlike a har Cherry, in its Colour and Shape. The Fleſh, which is no diſagreeable, ſerves as a Tegument to a Couple of Shells each of which contains a Seed. One of theſe is frequentl abortive, becauſe its due Fecundity is ſeldom imparted to i in the Flower-Seaſon; the other grows ſtronger, and receives a better Nouriſhment.

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* It lies to the Eaſt of Magdaſcar.

The Uſe of Coffee.

Some Perſons infuſe all the Fruit, after it ha been dried; others chooſe the Shells; but th beſt and moſt uſual Method is only to infuſe th Berries, when they have been moderately roaſted in a Veſſel of varniſh'd Earth, which is always preferable to one o Braſs, or Iron. The Berries are judged to be ſufficientl roaſted, when they begin to aſſume a Violet-Hue, and diſcharge an Oil of a very agreeable Scent. The Coffee, which is newly ground, has always the moſt Vertue; and when it is infuſed in boiling Water, it loſes fewer of its volatil Parts, than when it is immediately pour'd into cold Water When the Heat of the Fire raiſes the Powder to the edge of the Coffee-Pot, it is precipitated with a few Drops o cold Water.

It is the Opinion of our beſt and moſt experienced Phycians, that Coffee promotes Digeſtion, and corrects ſharp Humours, when it is drank after Meals. Several Perſons prefer it, in the Morning, for its Diſſipation of Vapours and other Diſorders of the Head, and for imparting a Livelineſs to the Spirits. Every one knows how much the Repoſe of the Night is hazarded by the repeated Uſe of this Liquor in the ſame Day; and what Precautions are taken, to correct the bitter Flavour of its Salts, with Milk, and Sugar, and Bread. Sugar is a conſtant Ingredient; Bread is proper, when the Liquor is drank in a Morning; and Milk is neceſſary for thin Conſtitutions, which would otherwiſe be injured by the Salts.

Chevalier. Is there any particular Choice to be made in ne Purchaſe of Coffee?

Prior. The ſmall and greeniſh Berries, and eſpecially hoſe, which diſpenſe an agreeable Scent, and are tranſnitted to us from *Cairo*, by the way of *Marſeilles*, are nuch more eſteem'd than the large and inodorous Species, vhich is tranſported to us over the Ocean.

Chocolate.

The Cacao, which affords the principal Inredient of Chocolate, is likewiſe a Seed. hey are ranged like Kernels, or Almonds, in kind of Cucumber or Melon, which grows on a ſmall ree in *America*. Thirty five, and ſometimes more, of heſe Almonds, are found together; and when they have een diveſted of their Shells by Fire, and are afterwards eel'd, and roaſted in a Baſon, before a moderate Fire, hey are pounded in a very hot Mortar. The *Americans* ruiſe them with an Iron Cylinder, on a flat Stone made ery hot; they are then form'd into a Paſte, which is afterwards boil'd with Sugar; and This is call'd plain Chocolate. ut if it is to be enrich'd with a fine Odour, four Pounds f this Paſte, and three of powder'd Sugar, are work'd toether in a Mortar, or on ſome Stone. When the whole is vell intermix'd, they add to it a Powder, compoſed of the eeds of eighteen Shells of Vanilla, a Dram and an half of inamon, and eight Cloves; ſome People add two Grains f Ambergreaſe; others one Grain of Musk; and perhaps he leaſt quantity of This will always be too much. Pepper nd Ginger are more eſpecially rejected, and this Compoſion is diverſified according to the Taſte of different Naons, and particular Perſons. The whole Intermixture is ompleated as ſoon as poſſible, to prevent too great an Evaoration of the volatile Parts. It is then work'd into quares, which are either eaten in that Form, or elſe they re diſſolved in Water, and then drank.

Chevalier. How is this Liquor prepared?

Prior. Four Ounces of new Chocolate, and a leſs Quanty of powder'd Sugar, are infuſed in a Pint of Water that egins to boil. The Chocolate-Pot ſhould be cover'd, and uffer'd to boil for the ſpace of a quarter of an Hour; after vhich, the Liquor muſt be mill'd, with an Inſtrument orm'd for that purpoſe, and which paſſes through an Aperure in the Lid. The Pot is then taken from the Fire, and when it has ſtood for a quarter of an Hour, the Liquor mill'd a-new, in order to froth it; after which, it is poure into Cups, and drank as hot as poſſible. A little Chocola is ſaid to be as nutrimental as a much larger Quantity other Food, and it has the Reputation of promoting the proper Functions of the Stomach.

Chevalier. I have heard frequent mention of Cocoa-Nut which ſhould certainly be diſtinguiſh'd from Cacao.

Prior. They are entirely different from each othe *India*, *America*, and other Countries, abound with Foreſ of Cocoa-Trees, which are a Species of large Palms, tha produce Nuts bigger than the Head of a Man. It woul be difficult to determine, whether the Nut, or the Tree ſelf, be moſt beneficial to the Inhabitants. The Wood fit for building Houſes and Ships; the Leaves, which ar very broad and ſubſtantial, ſerve as a Covering to th Roof; they are likewiſe manufactured into a Parchmen proper for Writing; and are alſo form'd into Sails for Veſels. The Branches, when they are preſerved, will dicharge a Liquor as agreeable as Wine, and which may either be preſerved, by boiling, or elſe converted into Vinegar. The inward Surface of the Nut-ſhell produces very fine woolly Subſtance, fit for making Ropes, and fo calking the leaſt Apertures in Ships. The Shell itſelf i made into Bowls, Spoons, and all ſorts of Utenſils. Th Subſtance of the Nut is an excellent Food, and it afford an Oil equally good, either for the Table, or the Lamp It likewiſe contains, from two, to four Pints of a deliciou Water, which is the uſual Drink of the Inhabitants, an their Children.

Chevalier. Can you favour me, Sir, with ſome Accoun of *Caſhoo*, which is employ'd as a Remedy for Diſorders in the Throat, and other Indiſpoſitions? It ſometimes reſembles a ſmall Seed; and at others, one would be apt to take it for ſome Species of Earth.

Prior. It is nothing more than a dried Paſte, which i ſent over to us, either in a large Maſs, or in ſmall Grains which have been ſcented with ſome Perfume. But this Paſte is the Subſtance of a Nut, which is gather'd from a Palm-Tree call'd *Arec*. It is cuſtomary to extract from it a Juice or Sediment, which gradually thickens, and the Phyſicians recommend it as a uſeful Remedy in ſome Diſtempers.

It would be tedious to enter upon a Detail of the various Aids Phyſic daily borrows from the Seeds of domeſtic and oreign Plants; we will therefore take a ſhort Survey of the Uſe, to which the Barks are appropriated.

The Uſefulneſs of the Bark of Trees.

The Barks of Trees are thoſe Parts of them, which are moſt impregnated with Salts and Oils; becauſe the Sap and oleaginous Particles, which aſcend through the long Fibres of the Wood, are return'd back through the Bark. This Profuſion of Salts, and other Principles of Vegetation, is manifeſted by the Goodneſs of the Bark-Aſhes, which are always preferable to thoſe of the peel'd Wood; and the powder'd Bark of Oaks, and other Trees, is render'd ſo very uſeful as it now proves, in tanning Leather, by the copious Salts and Oils, with which it abounds. When a Skin has been frequently powder'd over with this Bark, it will be ſtrengthen'd, and likewiſe render'd pliant. The Salt, which penetrates into every Part, fortifies and preſerves it from Corruption; and the Oil, which pervades the whole Subſtance of the Skin, cauſes it to become ſupple, and accommodates it to all the Motions of the Body it afterwards arrays. The Oil likewiſe renders it impenetrable to the Water.

When this Tanner's Bark has been employ'd in manufacturing Leather, for our Uſe, it is not yet diveſted of all its good Qualities, but is form'd into Clods, or ſmall Turfs, which when they have been well dried, furniſh the Poor with Fuel, at little or no Expence; but as the Aſhes of theſe Turfs have no longer an Intermixture of Salts, they are then entirely uſeleſs.

There are other Barks of Trees, which form a conſiderable Branch of Commerce; ſome of them are aromatic, as the Bark of the Cinamon-Tree, in the Iſland of *Ceylon*. Others are medicinal, as the *Peruvian* Bark, which is call'd *Quinquina*, and ſeldom fails to cure intermitting Fevers, provided it be neither old nor inſipid. Some are capable of being ſpun, as the Bark of Hemp, and That of ſome particular Trees in *India*, from which the Natives draw long Filaments, that are afterwards manufactured into Stuffs, with an Intermixture of Silk and Cotton.

Chevalier. Two Days ago, the Counteſs was preſented with a Box that contain'd two Pincuſhions, a Handkerchief,

chief, and a Pair of laced Ruffles. The Stuff that cover' the Pincuſhions, the Linnen of which the Handkerchie was made, and the Lace of the Ruffles were all produce from the natural Bark of the ſame Tree; the Letter, which accompanied the Preſent, was to this effect;

The Mountains, that riſe in the middle of *Jamaica* have a Growth of Trees of a moderate ſize, and which the Inhabitants of the Country diſtinguiſh by the name o *Lagetto.* The Leaves reſemble thoſe of a Laurel-Tree the exterior Bark is almoſt as hard and brown as That o other Trees. But what appears very ſurpriſing, is, tha the inward Bark, which, at firſt, ſeems white and very ſolid, is compoſed of twelve or fourteen Films, which may be eaſily ſeparated into as many Pieces of Stuff o Cloth. The firſt of theſe Films, which immediately ſucceeds the groſs Bark, affords a Cloth ſubſtantial enough to be form'd into Habits. The inward Films reſemble Linnen, and are proper for Shirts. But all theſe Films tha compoſe the interior Bark of the ſmalleſt Branches, are ſo many Pieces of exceeding fine Gawze, or Lace, which extend, and then ſhrink back, like a ſilken Net. A Neck-cloth made of this *Lagetto* Lace, was formerly preſented to *Charles* II. King of *Great Britain*; and all theſe vegetable Cloths are ſtrong enough to be waſh'd and whiten'd, like common Linnen *.

The ſame Letter adds †, that there is another Tree in in this Iſland, which produces a Fruit, whoſe Pulp is a natural Soap that will ſerve to waſh the Linnen-Product, and the Stones of it are uſed as Buttons to wearing Apparel.

Prior. That Country can't want Manufactures; but we need not go ſo far in ſearch of uſeful Barks.

Chevalier. Cork, which is ſo inſtrumental in
Cork. preſerving the moſt precious Liquors, is only a Bark, as I have been inform'd.

Prior. Nothing more, Sir; and when it appears ſo black and rugged, and likewiſe proves ſo light, one would hardly imagine it could be ſo uſeful as to cloſe the Orifice of all ſorts of Veſſels, with ſo much Exactneſs and Pliancy; and that it ſhould alſo be impenetrable to the Liquor.

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* Nat. Hiſt. of Jamaica by Sir Hans Sloane, Vol. II. p. 22.
† Ibid. p. 132.

Cork, or the Tree, which bears that Name, is a Species of large ever-green Oak, which grows in *Gaſcoign*, *Spain*, and *Italy*. Its Acorns fatten Swine better than thoſe of the common Oak. Its Bark cracks, and diſengages itſelf from the Tree, in conſequence of its being impell'd by another Surface of Bark, which is form'd beneath it. Care is however taken to prevent this natural Effort; and in order to acquire large and even Pieces, it is cuſtomary to make a perpendicular Inciſion through the whole length of this great Tree, and two tranſverſe Inciſions, one towards the Head, and the other at the Bottom of the Trunk. The Bark is removed without being ſhatter'd, and is then ſoften'd in Water, after which, it is placed over a Bed of burning Coals, which blackens its outward Surface. When this Operation is over, it is work'd into a Level, by a Weight of Stones heap'd upon it, and is afterwards dried, and diſpoſed into Bales, for Tranſportation.

A circular Gaſh, and generally a ſlight Inciſion in the Bark of certain Trees, are the uſual Expedients for extracting Liquors, Gums, and Roſins, which are uſeful in various Inſtances. The Pine, by theſe means, is qualified to ſupply us with Pitch, and Tar, for our Veſſels and their Cordage. The Fir, the Larch, the Cedar, the Cypreſs, the Maſtic, and Turpentine-Trees, with ſome other Species, are thus taught to afford us Roſin, Turpentine, and Weeping-Maſtic; together with Incenſe, and all the Variety of viſcous Juices that enter into the Compoſition of Varniſhes, Perfumes, and medicinal Remedies.

It is the Bark of different Species of Trees, that furniſhes a Flow of Balm, which is a liquid Gum, whoſe exquiſite Odour renders Mankind ſolicitous to obtain it, and likewiſe to derive Advantages from its other Qualities. Its principal Merit conſiſts in cloſing up Wounds, and diſcharging their Impurities. The Balm-Trees, which formerly grew in *Judæa*, are entirely eradicated from that Soil, and have been transferr'd to Grand *Cairo*, which is thought to be the only Place where they are cultivated at preſent. Another Species of this Tree, call'd the *Copahu*, is rear'd in *Braſil*, and in our Colony of *Cayenne*. The Balm-Tree; which affords a viſcous Liquor, whoſe Scent correſponds with That of Amber, and which is therefore call'd liquid Amber; is a *Mexican* Shrub, whoſe Leaves reſemble thoſe of the little Maple. The Inhabitants of our *Miſſiſſippi* Plantatio imagine they have found the ſame Shrub in that Countr The Balſam of *Tolu* is brought from *Carthegna* to *Mexic* and That, which comes from *Peru*, ſtill continues in grea eſteem.

If the agreeable Scent, imparted by the Sap of our Limes Poplars, and Birch-Trees, does not promiſe us a balſami Fluid; it, at leaſt, ſeems to indicate ſome uſeful Qualit that has hitherto been too much diſregarded.

Nothing is more uſual than to ſee a particular Gum flow from the Bark of moſt Trees. Thoſe, which are chiefl employ'd in medicinal Preparations, and likewiſe in Manu factures, are the Gum-*Arabic*, which gleets from the *Acaci* of *Egypt* and *Arabia*; the dropping Gum, which iſſues from a Tree in the Kingdom of *Camboge*; and the Gum, which is imported among us from *Senegal*. That, which trickle from our Cherry-Trees, is as much eſteem'd by ſevera Workmen, as any of the foreign Gums. We will now be-ſtow a few Obſervations on Roots.

Roots.

As Roots are bent in the Earth, proportionably to the Obſtacles that occur in their Progreſs, they are conſequently more contorted and knotty than any other Portion of the Tree. As the Fibres, therefore, of theſe Parts are form'd into ſuch a Variety of Deflections, while ſome of them are extremely dry and others are drench'd with different Fluids; they furniſh our Eboniſts with Pieces of Wood that are vein'd and clouded with ſuch a diverſity of Colours, as ſeem to have been traced out by the Pencil of a Painter.

Roots likewiſe ſupply Carpenters and Wain-wrights with Wood, naturally bent into the ſhape of a Bow; together with other Pieces, whoſe Solidity almoſt renders them un-changeable, and perfectly qualifies them for thoſe Parts of the Work, on which the greateſt Streſs is afterwards to be laid.

Dyers alſo uſe a Variety of Roots; but thoſe, which are ſalutary to us in our Indiſpoſitions, are almoſt innumerable; and no Remedies are ſo efficacious, in all the *Materia Medica*, as the *Pareira brava* Root, in Fits of the Stone; the *Ipecacuanha*, in Dyſſenteries; and Rhubarb, in Diſorders of the Stomach.

As great and various as the Advantages we derive from the ſmalleſt Parts of Trees, may prove, they are not comparable to thoſe we conſtantly obtain from the Wood itſelf. The Deity ſeems to be daily creating an inexhauſtable Subſtance, whoſe Plinacy qualifies it for the Reception of every Form we would cauſe it to aſſume, and whoſe Solidity preſerves it in all thoſe imparted Shapes.

The Suppleneſs of Wood conſiſts in its Facility to be bent, and cloven, and poliſh'd. A young Branch is commonly weak and flexible, and there are ſeveral that may be bent into Circles, without breaking. In this contorted State, they acquire the Pliancy of a Cord, by which means they may be twiſted into Bands, as well for Faggots, as for thoſe enormous Floats of Wood, ſix and thirty Fathoms in Length, which are convey'd from one River to another, and traverſe whole Provinces at an inconſiderable Expence; and each of which will, by the aſſiſtance of no more than forty Men, be enabled to diſcharge fifty Loads of Wood, at the Gates of thoſe great Cities that want it.

Several Species of Wood, as the Cheſnut, the Hazle, the Birch, the Aſh, the Willow, the Oſier, or Dwarf-Willow, and a Variety of other Trees, have a conſiderable quantity of large and ſmall Branches, which are ſo very ſupple and pliant, that the greateſt of them, when they have been ſplit from end to end, are capable of being rounded into Hoops, ſtrong enough to bind together all the Staves of Tuns and large Fats, almoſt beyond the Poſſibility of ſtarting; and, when the leaſt Branches have been ſlit, in the ſame manner, they are made into leſſer Hoops, fit for binding Hogſheads, Laundry-Veſſels, Pails, and Casks of all Dimenſions.

The Oſier, by its Flexibility, furniſhes the Gardener with Bands for palliſading all his Trees; and ſupplies the Basket-maker with Materials for Panniers, Flaskets, Scuttles, Hurdles, and ſuch ornamental Works for Deſerts, as are render'd very agreeable, by their Texture, and the Variety of their Colours.

The chief Merit of the Oſier conſiſts in its Aptitude to preſerve our large Tuns in a compact State, and to reduce the opening Staves to their firſt Coheſion; by which means they impriſon the moſt impetuous Wines, and render their Tranſportation as practicable as That of the moſt ſolid Cargoes.

The young Branches are not the only Wood that will aſſume any Form we pleaſe to give it; ſince the moſt ſolid Growths, when their Bulk has been ſufficiently diminiſh'd, will prove tractable under the Hand of the Workman, and eſpecially by the Aid of Fire. The Cooper, for inſtance, when he has ſhaped and planed his Pipe-Staves, connects their Tops together, in the form of a Cask, by the aſſiſtance of a Hoop, which embraces them; and he then kindles a brisk and clear Fire in the inſide of the intended Veſſel, the Pores of which are open'd by the Heat, and every Part is in agitation for ſome moments. In the Inſtant of their Diſunion, he diſpoſes a Cord round the Extremities of the Staves, and then contracts its Circumference with an Inſtrument for that purpoſe; and as the Breadth of each Stave gradually diminiſhes, from the Middle to the Ends, he forces them to bend and approach each other, while they form an inward Slant, which occaſions a Swelling in the middle of the Veſſel, and facilitates the ſliding of the ſeveral Hoops over one another. In conſequence of which, the middle Hoops may be changed, unbound, or faſten'd a-new, without diſplacing thoſe that encompaſs the Extremities of the Staves.

Turners, likewiſe, by the aid of Fire, give a rounding to the Planks of Oak or Beech, which they ſhape into Pails, Buſhels, and other Meaſures of every kind.

The ſame Expedient is employ'd in bending the Sides of muſical Inſtruments, and cauſing them to acquire that Proportion and Lightneſs, by which they are render'd ſuſceptible of the Vibrations of the Strings that are ſtretch'd upon them. The thin Shell of Wood, which covers the Body of a Violin, inſtead of giving a languid Repercuſſion of the Notes, after a Series of a hundred Years, will become more ſonorous, and under the Bow of a *Dubourg* *, will kindle an Audience into a pleaſing Enthuſiaſm. A *Geminiani* will ſoften its Modulations into inimitable Eloquence, whoſe Language will be intelligible to each Individual, becauſe it will always be addreſs'd to the Heart.

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* The Tranſlator has taken the liberty to change the French Forcrois and Marais, for the amiable Names of Dubourg and Geminiani, whoſe Harmony will never be depreciated by the Violins of any Nation whatever.

The Subſtance of Wood accommodates itſelf to our Neceſſities, not only by its Pliancy in bending, but likewiſe by its Diviſibility into as many Parts as we pleaſe.

Chevalier. From whence, Sir, have moſt Species of Wood the Aptitude we obſerve in them, of cleaving through their whole Length; and what can occaſion the Difficulty we experience in cutting them tranſverſly?

Prior. This Conſtitution, which is call'd the Grain of the Wood, reſults from the Situation of the long Tubes, which being diſpoſed in Lines parallel to each other, thro' all the Length of the Tree, in order to conduct the Sap to the Foliage and Fruits, may be diſunited by the Inſertion of a Wedge; but their Combination forms a Solidity, which will not eaſily yield to any lateral Effort.

Chevalier. This is much the ſame Circumſtance as attends a Pacquet of Hemp or Silk; one half of which may eaſily be ſeparated from the other, but it will be very difficult to rend them tranſverſly; and if the whole be twiſted, in order to unite the ſeveral Threads more effectually, they will be form'd into a Cord ſtrong enough to raiſe Bodies of the greateſt Weight.

Prior. There is this Difference between the Threads, which compoſe a Cord, and the Fibres, which conſtitute a Piece of Wood; that the hempen Threads being naturally flexible, and very crooked, are unable to ſtiffen and conſolidate the Cord in its Length; whereas the Fibrous Tubes, which form the Grain of the Wood, are deſtin'd to convey the Sap, and are therefore very ſtreight for the generality; and when they have been well impregnated with their proper Nutriment, and are ſtrengthen'd in a ſubſtantial manner, one againſt another, their mutual Concurrence in the ſame Direction, forms a Maſs of that Firmneſs and Solidity, through its whole Length, that a perpendicular Piece of Oak, an Inch ſquare, will ſupport a Weight of eight thouſand Pounds; and a very few Props will ſuſtain an enormous Load of Timber Work, when the Wall, on which it reſted, is removed.

But before we inquire into the Advantages we derive from the extreme Force of Wood, let us employ a Moment's Conſideration on the Services it renders us by its Diviſibility, and the beautiful Smoothneſs, into which it can ſo eaſily be wrought.

The Ax, the Saw, and the Plane, enable us to divide a Trunk or Branch of a Tree into as many thin Planks as we pleaſe. This Wood may be hollow'd, rounded and poliſh'd; it is likewiſe capable of being turn'd and contorted like ductile Wax, in order to be ſhaped into Baniſters, Door-Caſes, Wainſcots, Saſh-Frames, Wardrobes, and all thoſe fine Branches of Furniture that are form'd by the Joiner, for the Reception of thoſe Things we are deſirous of preſerving. I would add too, that a Set of Furniture of this nature, renders our Apartments as ornamental, and even more ſalutary than they would prove, were they hung with ſplendid Silks, and the richeſt Paintings, or were incruſted with the moſt magnificent Marble. When a Varniſh is ſpread over the whole Work, it ſmooths it, from end to end, with the utmoſt Uniformity, and its Bitterneſs chaſes away the Worms that would otherwiſe injure the Furniture at our Expence.

The Facility, with which all the Species of Wood may be divided and poliſhed, has awaken'd the Induſtry of Ebeniſts, through a Series of many Ages. They have acquired the Art of cutting the Extremity of a ſmall Portion of Wood, agreeably to the Profil of the Figure they would cauſe it to aſſume. They can aſſemble, and glew a Range of delicate Compartments, regular Landſcapes, beautiful Flowers, and curious Groups of Animals, on a ſolid and ſubſtantial Ground; and the whole ſhall be compoſed of little Squares of foreign or domeſtic Wood, adjuſted with the niceſt OEconomy.

They ſelect the Olive-Tree, for its rich Veins; the Walnut-Tree, for its gloſſy Clouds; the Ebony, for the ſurpriſing Beauty of its ſable Hue; the Box, for its golden Yellow; the Braſil, for its amiable red; the ſmall Cherry-Tree, for the Luſtre of its Poliſh; the Maple, for its pleaſing Spots; the Pear-Tree, for its facility in aſſuming the Tincture of Ebony; the Cedar, for its Immunity from Corruption; the Wood of *St. Lucia*, which is a Species of the little Cherry-Tree of *Lorrain*; the Aloé, and a Variety of other Woods, for the Richneſs of their ſeveral Odours. Theſe are form'd, by the Art of Joinery, into Bureaus, Cabinets, Book-Caſes, Boxes, Pedeſtals for Pendulums, Vaſes and Statues; and the principal Merit of theſe Works conſiſts in their being conducted with a Simplicity of

Deſign, a Propriety of Execution, and a Solidity through the whole.

The eaſy Methods of cutting Wood, and ſmoothing it into the fineſt Surface, promoted the Invention and Improvement of the Art of Turning. The hardeſt Species of Wood, as the Box and the Maple, which are ſcarce ſuſceptible of any Impreſſions from Iron and Steel; may, when they are conſign'd to the Hands of the Turner, be eaſily rounded, and diminiſh'd into a Delicacy of Shape; they are capable of being ornamented with flowing Fillets, riſing Gorges, hollow Flutings, and ſwelling Fruits. His Inſtrument can form them into Columns, Baluſtrades, Boxes, and every other Figure he pleaſes to afford them. This agreeable Art has, at all times, made repeated Tranſitions from the laborious Artiſan, to Perſons of diſtinguiſh'd Rank; it has relax'd the Auſterity of monaſtic Solitaries, and has had the Honour to be the favourite Amuſement of Princes themſelves.

The Conjunction of Solidity and Pliancy, in the ſame Portion of Matter, is the reaſon why Wood has been ſelected for repreſenting, in high or demi-Relief, the Figures of Men and Animals; Flowers and Foliage; with all the Ornaments that have ever been attempted on Marble and Metals, in order to perpetuate their Duration. But alas! a falſe Taſte, with a partial Fondneſs for Glitter, has frequently condemn'd the fineſt Touches of Sculpture to Obſcurity, under a radiant Surface of Gold and Silver! How many rich Figures of *German*, *Pilon*, and others of our beſt Statuaries, have loſt the greateſt part of their expreſſive Energy, and delicate Lightneſs, under the Bronze and Gildings that incruſt them!

Chevalier. I have heard a Piece of Hiſtory related, which correſponds very much with your Obſervations. *Lycippus*, of *Sicyon*, form'd an incomparable Statue, which repreſented *Alexander the Great*, in his Bloom of Youth. *Nero* cauſed it to be gilded over, becauſe it was only Braſs. This ridiculous Ornament defaced all the Beauty of the Features and harden'd every Grace in the youthful Form. The Gold was at laſt taken off, and the Statue appear'd more valuable than before, even with all the Diſadvantages it had ſuſtain'd from its injurious Embelliſhment. But I don't conſider, Sir, that I interrupt your Account of the Benefits we receive from Wood.

Prior. The Sequel would be too long for one Conference; for which reaſon, the Enumeration of the Advantages we derive from the Solidity, and other Qualities of Wood, ſhall be reſerved for your Entertainment to-morrow.

WOODS.

DIALOGUE XVI.

The PRIOR. *The* CHEVALIER.

Prior. IN our Yeſterday's Converſation, Sir, I intimated to you ſeveral of thoſe Advantages we derive from the Trees of the Foreſt; but they are render'd ſtill more beneficial to us by their large Dimenſions, and chiefly by that Texture of their conſtituent Parts, which prevents their Separation. We may eaſily diſcover, in the wide Scenes of Nature, a Number of Bodies that are very maſſive and compact; ſuch as Stones, and Blocks of Marble, which we can appropriate to a Variety of Uſes. But we find it very difficult to aſſemble and range theſe Maſſes, in ſuch a manner as may be ſubſervient to our Deſigns. They are very untractable as well as brittle, and are only uſeful to us, by continuing in a State of Immobility; whereas the moſt enormous Maſſes of Wood are always obſequious to the Intentions of Man. Trees of eighty Feet in length plunge their Roots into the Bowels of the Earth, in ſearch of a ſolid Bottom, in ſoft Soils that would ſink under a Weight of Building. Theſe mighty Growths of Wood may, by the Force of Blows, be driven deep either in the Earth or Water, where they will form a Foreſt of immoveable Piles that are frequently incapable of Corruption, and will for ever ſuſtain the Weight of the largeſt Structures, with ſuch a firm Coheſion and Equality, as are not to be obtain'd even from the Solidity of the Earth itſelf.

I likewiſe ſee vaſt Bodies of Timber diſpoſed in a very different Situation. They aſcend to the Tops of Buildings, where they ſtrengthen the Walls, and prevent their ſtarting from the Poſitions aſſign'd them ; they ſuſtain the whole Preſſure of a huge Roof of Tiles, or Slates, or even Lead itſelf.

Is it, at any time, neceſſary for them to be in motion, for the Service of Mankind ? You will then behold immenſe Beams, which almoſt appear unmanageable, moving from their Places, and adapting themſelves to the full Play of mechanic Powers. They mount aloft, they deſcend, they roll, they whirl along, with as much Agility as Force, for the Satisfaction of Man, and to aid the Inability of his feeble Arms. They furniſh Materials for thoſe Frames that ſuſtain, for many Ages, the ponderous Swings of the largeſt Bells. They are ſhaped into Naves, and Axle-Trees ; Wheels, and weighty Carrs ; and are converted into all the Vehicles that can poſſibly be form'd, by the Wain-wright, for the Conveyance of our Burdens to what Quarters we pleaſe. They ſupply us with Draw-bridges and Portcullis's ; Wine-Preſſes, and Machines for Founderies ; together with Cranes, and all thoſe mighty Engines, which diſpatch more Work in an Inſtant, than could formerly be accompliſh'd in many Hours.

In a word, we are indebted to the Foreſts for all thoſe Veſſels that move upon the mighty Waters, and reſemble floating Cities, which are wafted, with all their Inhabitants, by the Winds, from one end of the Globe to the other.

Chevalier. It was certainly a daring Attempt, to traverſe the Ocean on a Set of Planks, faſten'd together. How could ſuch a Thought ever enter into the Imagination of Man ?

The Origin of Arts.

Prior. Man obſerved, that the Animals around him were ſupplied with all that was neceſſary to their Exiſtence, from the Moment of their Birth ; and were enabled to tranſport themſelves, from Place to Place, with ſurprizing Agility ; while he himſelf was conſtrain'd to move with a ſlow Progreſs, in the painful Purſuit of thoſe Accommodations that were diſperſed at a large diſtance from him. He beheld other Animals gliding as light as the Wind, in the Regions above him; he ſaw them cleave the Air, without the leaſt Impediment, and tranſport themſelves, from Land to Land, by a Flight that was unobſtructed by interpoſing Seas. Man came into the World, deſtitute of all theſe Advantages, but he derived an ample Equivalent from the Faculty of Reaſon, by which he compell'd the terreſtrial Animals to direct their Motions for his Service. The Levity of Wood, the Fluctuation of the Waters, and the Force of the Winds furniſh'd him with Expedients for procuring Vehicles, by Land and Sea, as light as the Wings of Birds. When theſe Inventions were compleated, he no longer was limited to a ſcanty Portion of Earth, but was able to transfer himſelf where-ever he pleaſed. A mutual Intercourſe was then maintain'd by diſtant Provinces. The Cities, that were ſeated on the Outlets of Rivers, were furniſh'd with Importations from foreign Lands, and then tranſmitted them, by their Rivers, to different Parts, and diffuſed them through a whole Kingdom. *Paris* and *Nants* were approximated by theſe Means, and all the Subjects of a mighty State ſeem'd to be aſſociated into one City, by virtue of theſe mutual Communications. They ſoon became intimate; they contributed to the Aid of each other, and frequent Viſits were interchanged between them. I may even affirm, that the whole Earth is now become one City, of which the Continents form the different Quarters. Man, ſince the Invention and Improvement of Navigation, can take a Progreſs to each Extremity of the World, in the ſame manner as the Inhabitants of *Venice* paſs from one Quarter of their City to another, in their Gondolas. He now can travel nine thouſand Leagues, in leſs than the ſpace of two Years, by the Aid of his Veſſel and Sails, and he arrives at thoſe Regions that have never been viſited by the Birds of his Climate. When Eagles and Faulcons attempt to expatiate as far as Man, they are debilitated and loſt in the midſt of their Paſſage.

After this Account of the Advantages we derive from Wood, can we imagine it to be capable of affording us another, which is ſtill more important? This, however, is a real Fact. Wood is the Support of our Lives, ſince it contains the principal, and moſt natural Aliment of Fire, without which we ſhould be incapable of preparing our uſual Food, or forming the greateſt part of thoſe Conveniencies that are moſt neceſſary for the Preſervation of our Health.

The Sun is the Soul of Nature, ſince he imparts Life and Action to all her Works; but we have no Ability to collect his Beams, in ſuch a manner, as will be ſufficient to prepare our Food for our Tables, or to melt and form our Metals into the Shapes we need; we are unable, by his ſole Miniſtration, to ſoften, and dry, and purify the Portions of Matter we employ. Wood ſupplies the Deficiency of the Sun, in moſt of theſe Operations, and, in proportion to its Quantity, accommodates Mankind with all the different Degrees of Heat and Flame.

In the Winter Seaſon, when the Sun only riſes to an inconſiderable Height above our Horizon, the Length of the Nights, in conjunction with unſalutary Fogs and ſevere Froſts, would be ſufficient to extinguiſh that vital Warmth in Man, which is cheriſh'd by the ſolar Beam, did not our Hearths afford us a reviving Heat and Alacrity, of which we ſhould otherwiſe be diveſted in the Abſence of that Luminary.

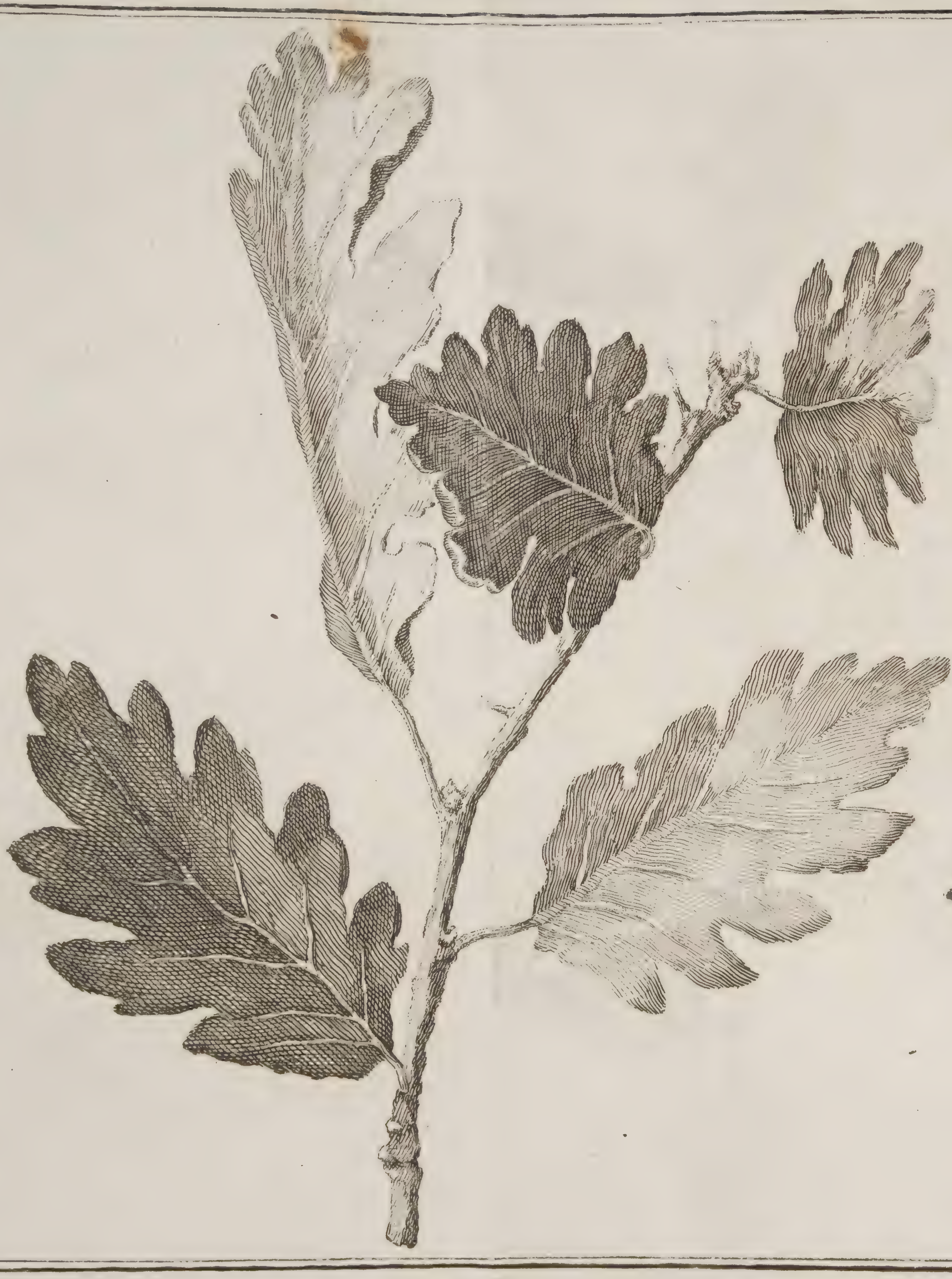
Chevalier. I am now ſenſible how neceſſary the Woods are render'd to our Welfare. The Trees, that bend under a Weight of Fruit, are not ſo beneficial to us as thoſe we call unfertile. But is this Wood, Sir, which proves of ſuch Importance to us, ſo ſcarce as is commonly repreſented? If we credit an old Prophecy that is ſo generally known, all *France* will one day periſh for want of Wood. Is there any Foundation for ſuch an Opinion?

Prior. You will eaſily judge of the Falſhood of this Prediction, by the ſhort Hiſtory I will now give you of our Woods.

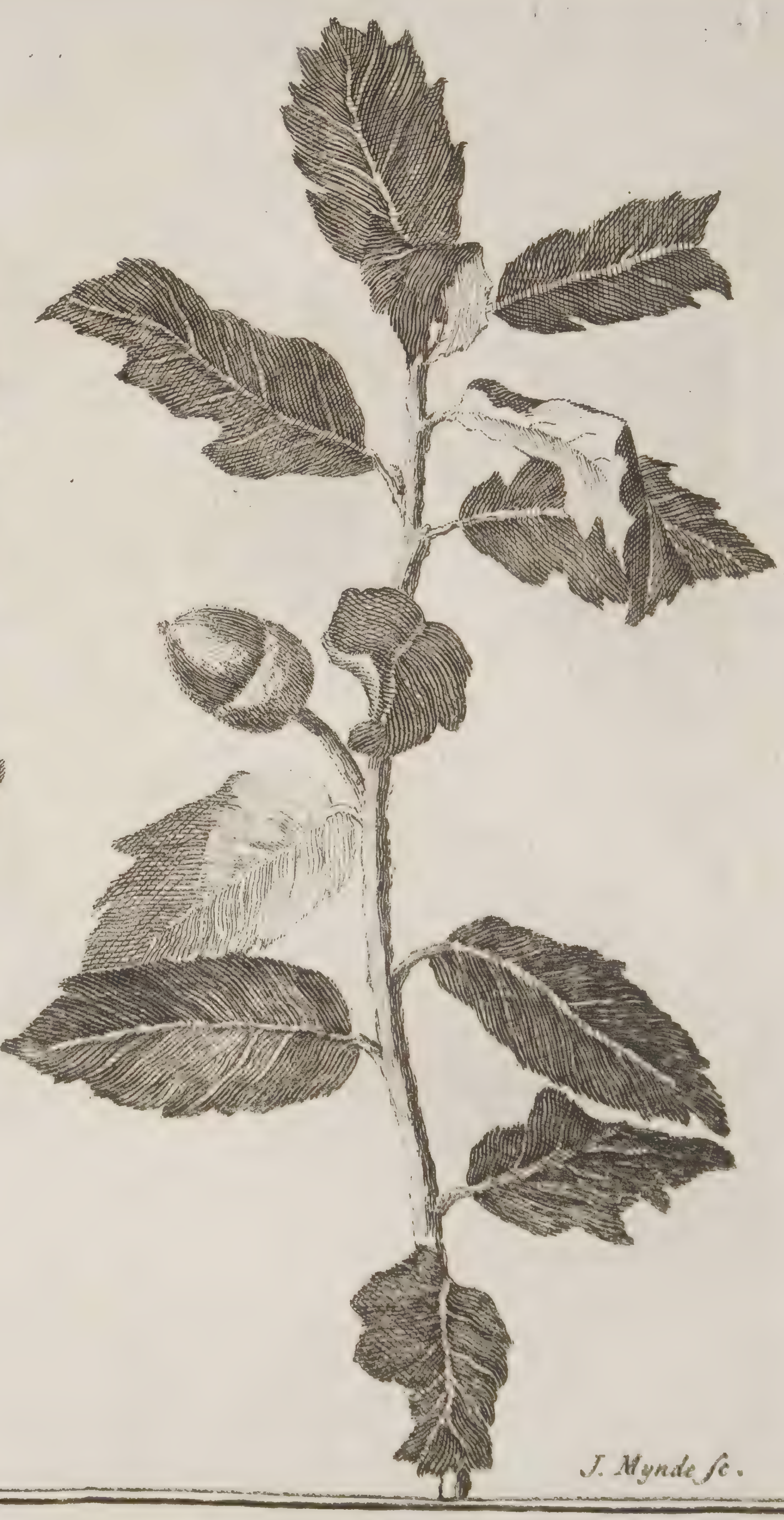
An hiſtorical Account of the Foreſts of France.

This precious Subſtance, which is ſo neceſſary to all the Conveniencies of Life, was once extremely plentiful in *France*, and in all the other Countries of *Europe*; and the Inhabitants were even embarraſs'd with its Profuſion. In the Times that immediately ſucceeded the Deluge, it is very probable that the Seeds of Herbs and Plants, which the Waters had ſwept away, and afterwards depoſited on the Earth in a promiſcuous Manner, began to

ſhoot



The Foliage of the Oak.



The ever green Oak with its Acorn.

hoot forth in all Parts; in conſequence of which, whole Continents were almoſt cover'd with their Productions. As the Nations advanced from the *Eaſt*, to the Occidental and Northern Regions, they were obliged to cut down the Woods, in the Lands they propoſed to inhabit and culti-vate. The Extent of the Foreſts in *Germany* and *France* was accordingly contracted, in proportion as thoſe Countries became populous.

Theſe Foreſts were, however, ſo immenſe and unſervice-able, in the twelfth Century, that the great Lords granted arge Portions of them to the firſt religious Communities, hat were deſirous of a Retreat in thoſe Solitudes. The Diſciples of St. *Norbert*, and St. *Bernard*, were indefati-able in clearing the Center of the Woods they inhabited, and theſe laborious Solitaries gradually cultivated Tracts of and that produced extraordinary Revenues out of thoſe eſolate and neglected Thickets, where the Ax of the Woodman had never reſounded till then. It may likewiſe e affirm'd to their honour, that the Portions of Land, which had been conſign'd to them, were of very little Value; and that they themſelves were the Founders of hoſe affluent Fortunes, in the Enjoyment of which their ucceſſors are ſo much envied at preſent.

Thoſe Lords and Communities, who poſſeſs'd large Tracts of unneceſſary Wood-Lands, converted the greateſt art of them into arable Lands; and the Number of the nhabitants was augmented, in Proportion to the Enlarge-ment of the open Country, and the Increaſe of its Profits. Experience has made it evident, that the more any Land is ultivated, the greater number of Inhabitants may be ſup-orted by it; and on the other hand, the more numerous he Inhabitants prove, the more effectually will the Land be ultivated. The State derived great Advantages from the ands that were thus clear'd; but as the beſt Regulations nay ſometimes run into Extremes, and as valuable as the Productions of the Earth may prove, our Woods may be ut down to ſuch a degree, as may hereafter reduce *France* o the Condition of *England*, which has ſuffer'd its Foreſts o be totally deſtroy'd *. Our Circumſtances would then be render'd more deplorable than thoſe of the *Dutch*, who can ſupply their want of Wood, by burning Turf, which is an unctuous kind of Earth, dug by the Natives from their marſhy Lands. We ſhould likewiſe be more deſtitute than the *Engliſh*, who are furniſh'd with vaſt Beds of Coal, which is another Species of fat Earth, impregnated with Sulphur, and other metalic Principles, whoſe Scent, which is ſomething diſagreeable, may be render'd very ſupportable by Cuſtom. We, at laſt, became ſenſible of the fatal Conſequences that were likely to reſult from the Liberty taken by each Individual, in diſpoſing of his Woods in the ſame manner as he acted by other Branches of his Property; and we were guarded by the Wiſdom of our Government, from the Neceſſity of having recourſe to the *Northern* Nations for our Supplies of Wood. Our Kings, who are always attentive to improve the natural Productions of *France*, eſtabliſh'd a Set of Conſervators of the Waters and Foreſts, to prevent all arbitrary Devaſtations and Fellings of Wood. They regulated the proper Order and Seaſons for Cutting, and no one was permitted to fell a ſingle Stem, till the proper Officer had marked the Tree with the Conſervator's Ax. But as it was not thought ſufficient to ſecure the large Growths from the Caprice of private Perſons; ſeveral wiſe Reſervations were made in favour of the Under-wood, which is uſed for Faggots, Rafters, Laths, and Hoops. As the Timber, which is employ'd in building Houſes and Ships, is the moſt important Species of all; due Precautions were taken for its Propagation, and ſixteen Standard-Trees were order'd to be preſerved on each Acre of Coppice-Land, in every Seaſon for felling; and theſe were not to be cut down without a proper Licence from the Conſervator; by which means, the Trees, that were ſo preſerved, acquired their due Growth, in proceſs of time, and the beſt Seeds were always planted, after each Felling, in order to prevent the Exuberancy of bad Wood.

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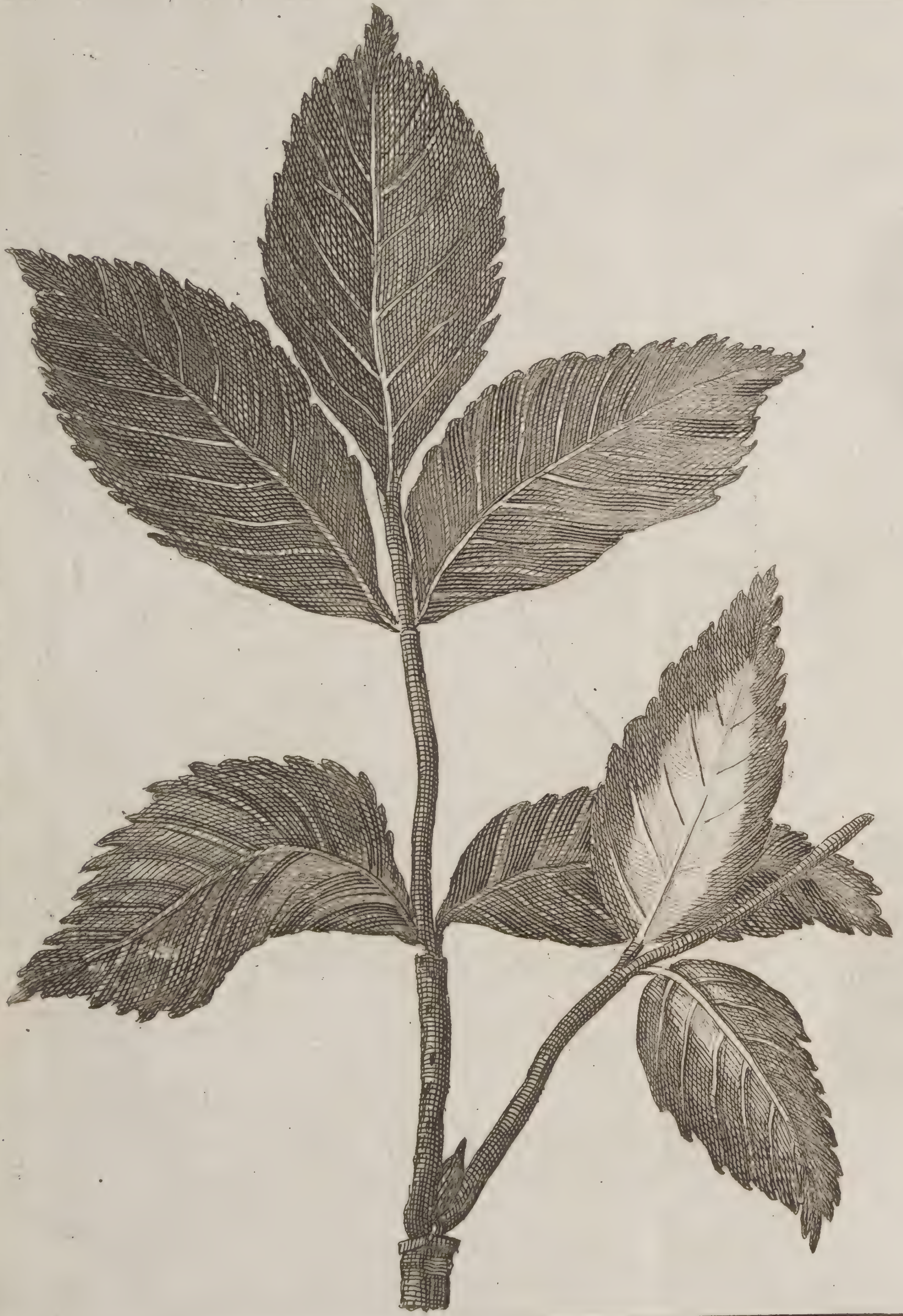
* Our ingenious Author has been a little too inconſiderate in this ſſertion. For the Foreſts, which are ſtill remaining in England, re ſufficient to ſecure her the Empire of the Ocean, againſt all Com-etitors for many Ages.

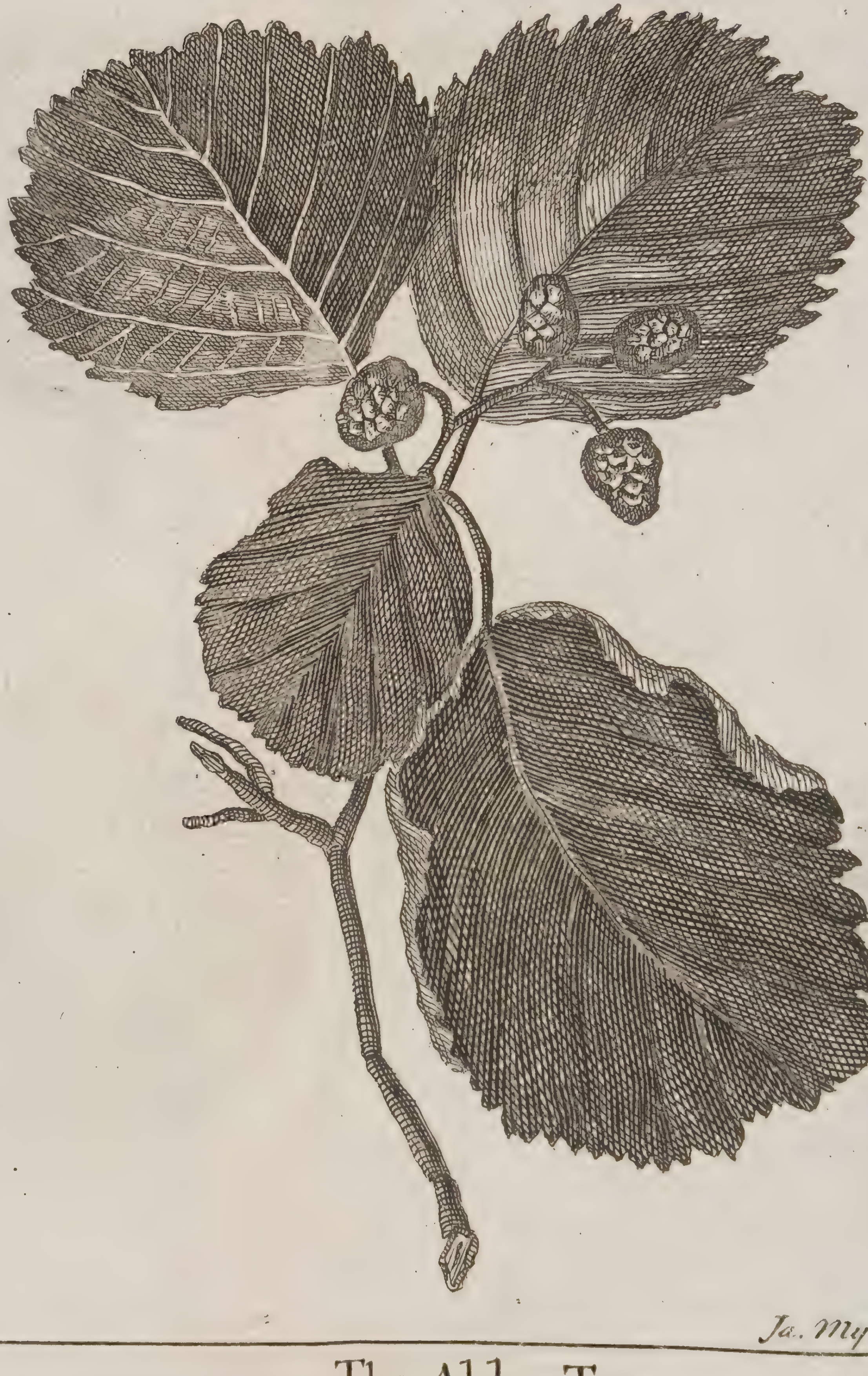
In conſequence of the ſame Regulation, ten Trees are to be left on each Acre of Land, when-ever the full-grown Timber is fell'd.

All private Perſons were likewiſe prohibited from diſpoſing of their Standard-Trees, till they had continued forty Years in the Coppice, and the full Growths were to be a hundred and twenty Years old; by which means, a ſufficient

Plate 26 Vol. II page 285



The Aſh Tree



Ja. Mynde sc.

The Alder Tree

cient Quantity of Wood is always ſecured for Fewel and uilding.

The Precautions of our Government were extended yet urther. When the Trees were crouded together in the Voods, they ſhot forth but few Branches, while their Trunks ſwell'd into a large Subſtance, and roſe to a great eight, becauſe they enjoy'd a free Circulation of Air only n their Tops. Perſons of Judgment were ſenſible, that when ſome Part of a Wood ſhould happen to be fell'd, the tems of the remaining Trees would acquire but a very moderate Circumference and Height, when they grew up o Standards, becauſe their lateral Branches would ſhoot nto the vacant Spaces, which would then be afforded them y the Wood already fell'd. They likewiſe foreſaw, that he ſame Stems would be more expoſed to the injurious Effects of Cold, in the open Air, than they were in the loſer Growth of the Thicket; and that thoſe Trees, which urvived the Rigours of the Froſt, would fall by the Ax of he Woodman, who knew no Law more cogent than his wn Neceſſities. In order, therefore, to preſerve and multiply the Timber-Trees, in a more effectual manner, *Lewis* he 14*th* commanded a Reſervation to be made of more han a fourth part of thoſe Foreſts that were poſſeſſed by he Church, or any eccleſiaſtic Community, as a Property n *Mortmain*. This reſerved Portion is now become ſo acred, as to be exempted from the Authority of the Conſervator himſelf; and the Trees are not to be cut down, without an expreſs Commiſſion from the Council, who are o be ſatisfied of the Neceſſity for that Proceeding; and a Licence of this Nature is never granted, but when the Plantation is in danger of periſhing by Age.

The Court, the Nobility, and whole Cities, have added many laudable Examples to theſe judicious Regulations. Our great Roads begin to be border'd with long Rows of Elms, and other Trees, which in all probability, will prove beneficial Reſource in ſome future Emergency. The Traveller, while he paſſes through large Provinces, may enjoy he branching Verdure that blooms over his Head, without ntercepting the amiable Landſcape of the Country from is View. A Variety of riſing Avenues conduct the Eye o ſtately Caſtles and large Towns; and *France* ſeems, within the laſt twenty Years, to be changed into a Garden of Pleaſure.

Chevalier. You have relieved me, Sir, from my Apprehenſions of a Scarcity of Wood; but in order to preſerve it more effectually, I think we ought to practiſe the Reverſe of the former Method. Our Anceſtors converted uſeleſs Foreſts into arable Land; but it would now be proper to convert uſeleſs Lands into Foreſts. I know ſome Soils in which Buck-Wheat is ſown but once in five or ſix Years.

Prior. The Method you recommend, Sir, has been practiſed by ſeveral Perſons, with great ſucceſs; and is one of the beſt Expedients for the Melioration of bad Soils, and eſpecially ſuch as lie waſte, and are very remote.

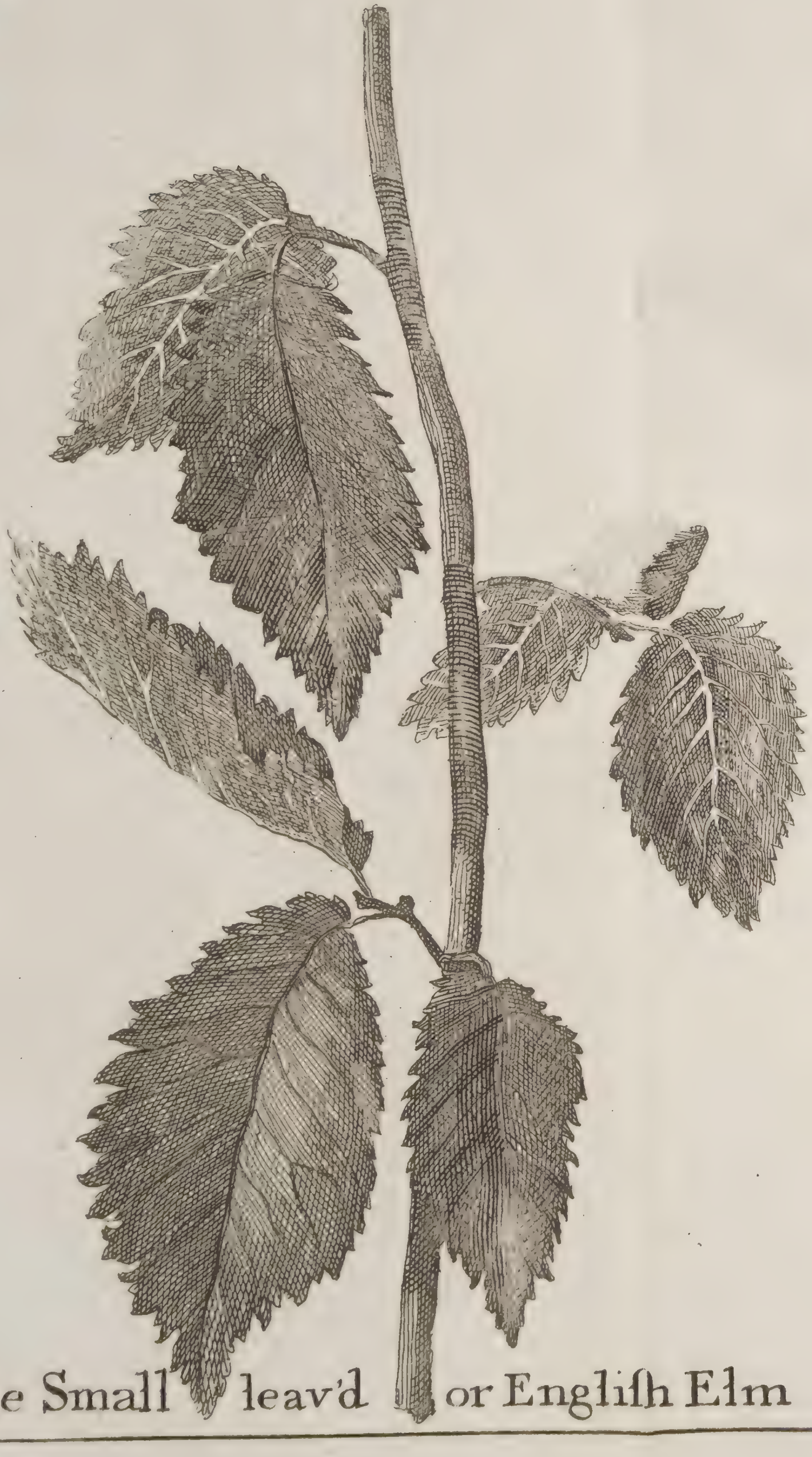
Chevalier. But we muſt wait many Years, before we can derive any Benefit from theſe new Plantations.

Prior. A provident Father, who is all his Life-time induſtrious to make a decent Proviſion for his Children, will eaſily prevail on himſelf to reſign the inconſiderable Profits of a dry and ſtubborn piece of Land, for a few Years; in order to ſecure to himſelf and his Deſcendants the Enjoyment of a better Revenue.

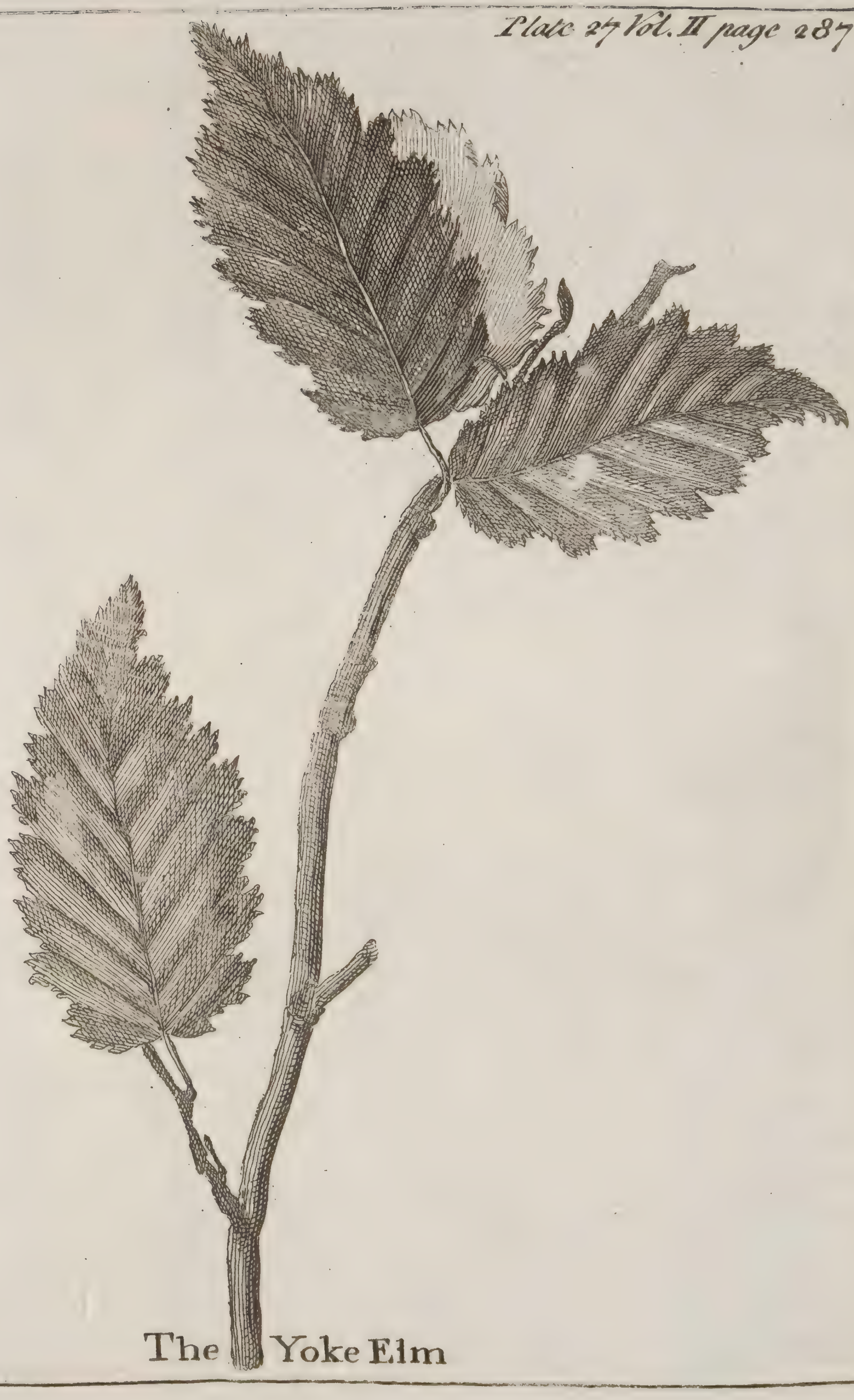
Chevalier. The Plantation of a Wood ſeems to be attended with another Inconveniency. A good Soil is never appropriated to this Uſe; is it poſſible, therefore, to rear a Growth of Trees on thoſe Lands, which are unproductive of Corn?

Prior. There is no Soil ſo very barren and dry, as to be incapable of affording ſome particular Species of Wood, which is always profitable to the Proprietor. If a Tract of Land ſhould be favourable to no Plants but Aſpen-Trees, or a Growth of Broom, which is very rarely the Caſe; the Profits will, however, be much more conſiderable than thoſe, which ariſe from a little Buck-Wheat, once in five Years. The Productions of the Soil would always ſupply the neighbouring Inhabitants with Fuel, and would likewiſe afford a ſalutary Refreſhment to Flocks of Sheep, who cure themſelves of their Diſtempers, by nibbling the pointed Spires of Broom. The Scarcity of Wood in any particular Country, the Neighbourhood of a good Town, and likewiſe of a commodious River for floating the Wood, are Circumſtances that often concur in the ſame Situation, and ought to be conſider'd by the Proprietors of Land, as ſo many

Plate 27 Vol. II page 287



The Small leav'd or Engliſh Elm



The Yoke Elm

vailing Motives for Planting; and they may be confident Succeſs, from innumerable Examples of the ſame Nature. The whole Affair conſiſts in the firſt Culture, and the oice of ſuch Plants as correſpond with the Qualities of the l. Thoſe Trees that appear, from time to time, in pub-c Roads, and other Parts of the drieſt Countries, are ſo ny Sketches of what the Soil is capable of producing; and y ſeem to reproach the Inhabitants with the melancholy pect and Nakedneſs of their Mother Earth.

Chevalier. What Methods are to be obſerved, when we gin to plant a Wood?

Prior. The firſt neceſſary Labour will be to t a deep Trench round the Land, where intended Plantation is to be made; and throw the Earth of the Trench upon the ges of the Ground it encloſes. If this Precaution be ne-cted, your Work will be entirely deſtroy'd by intruding ttle. You may either plant Seed or young Trees; the er of which, will be ſooneſt productive of Wood; but y will likewiſe create a larger Expence. The Seeds will more tardy in their Productions, but the Charge will be ch leſs, and the Wood will be more vigorous and able.

The Manner of Planting a Wood.

An Acre of Ground, containing an hundred Rods or ches, each of which is equal to twenty two Feet, will uire fourteen thouſand Plants, which are commonly l for about Twelve-pence a thouſand. Theſe muſt be chaſed of ſuch Perſons as have Woods of their own; no being permitted to take them either from the King's eſts, or from thoſe that belong to eccleſiaſtic Communi-; becauſe the State will never conſent to the Diminution this important Property, and no young Tree is ever to removed from thoſe Plantations, without an expreſs Per-ſion, which muſt be authoriſed by ſome emergent Oc-on. It will be proper to chuſe ſuch young Trees for r Plantation, as have a large Spread of Roots, and have n newly taken out of the Ground; becauſe a Delay, even two Days, is ſufficient to deſtroy them in great num-s.

The Plough prepares the Land for the young Plant, at leaſt Expence. When a Furrow has been open'd, two ſons walk by the ſide of the Horſes, and place the Shoots in the Furrow, at the diſtance of a few Feet from each othe The Earth Board then covers them with the Soil that ſcoop'd out of a new Furrow. Seventy five Perches Land may be planted in one day, for three Livres and fiftee Sols; the uſual Price for a whole Acre, being five Livre Each of the two Men, who plant the young Trees, will l ſatisfied with twelve Pence, for a day's Labour. The Pla tation may likewiſe be made in Trenches, or long Channel but this Method is more tedious and expenſive than tl other.

In order to plant the Maſt of the Beech, and the Seeds the Elm with ſucceſs, the Soil ſhould be broken into minute Parts as poſſible; becauſe the Buds of theſe Plan are extremely delicate, and never ſhoot forth with the V gour of Acorns, whicd need only be caſt into a Furrow th has been open'd by the Plough. The Seeds of the Elm ma be gather'd up in the Fields; the Beech-Maſt is ſold, in ſ veral places, for Ten-pence a Buſhel, ſix of which will ſuffic for one Acre; but the ſame quantity of Ground will requi ſixteen Buſhes of Acorns, which are commonly ſold for fiv Pence a Buſhel.

Before you plant your Seeds either in Furrows, or Holes open'd at a regular diſtance from each other; it wi be proper to let them bud forth in a Bed of Sand, by whic means you may be certain of planting only ſuch good Seec as will proſper.

The young Plants, which ſpring from theſe Seeds, wi require ſome Attention for the firſt Years, and they wi be greatly forwarded by proper Refreſhments of Water i dry Seaſons; they ſhould likewiſe be thin'd, when the are ſo numerous as to defraud each other of their mutu Nouriſhment; the Earth ſhould alſo be ſtirr'd, when grows too compact; and Care ought to be taken to clear a way the Weeds, which choak the Growth of the tend Plantation.

When the Trees have been in the Ground for the ſpac of ten Years, a ſingle Acre will furniſh you with eight c nine hundred, or even a thouſand Faggots, at the fir Lopping; and when twenty Years are expired, the ſam quantity of Land will produce a third more. But if you le the Wood grow untouch'd for about twenty four Year ery Acre will yield you ten or a dozen Cords of Wood *, d a thouſand Faggots, excluſive of the white Wood, nich may be ſhaped into Poles, and Pannels, and Rafters, thatch'd Roofs. I omit the reſerved Growth of Standards, nich will afterwards furniſh all the Pieces neceſſary to form oſe Roofs that are to be cover'd with Tiles. Experience s made it evident, that each Acre of ſuch Wood-land will eld its Owner fifty, ſixty, and even ſeventy Livres, every n Years. The Expence of ſinking the Trench, and anting the Trees, may, perhaps, amount to ten Crowns. the Ground, which is converted into Wood-land, be m'd at twenty five Pence an Acre; the Sum neceſſary to advanced for Planting, and the Loſs ſuſtain'd by the iſcontinuance of the yearly Income for ten Years, will be paid with Uſury by the firſt Lopping, and much more nply by all the others.

If, inſtead of a Coppice, you are deſirous of lofty Trees, Growth of ten or a dozen Years may be gain'd by planting e young Trees, ſix or ſeven Feet in height, and four or e Inches in diameter, at the diſtance of a Fathom from ch other, or ſomething more; and it will be proper to ure them with Stakes, againſt the Violence of the Winds, d the Frictions of Beaſts; but the Expence of a Trench ll be altogether unneceſſary.

Coppice-Wood is cut but once in nine Years; but if you fer it to remain untouch'd for twenty-ſeven Years, this ood wil begin to ſhoot into a high Growth, which will fully compleated in the ſpace of ſixty Years.

Some Perſons are betray'd into a great Miſtake, in this nd of Melioration; by deſiring to raiſe thoſe Plants, which ey think moſt conſiſtent with their Intereſt to obtain, ſtead of chuſing ſuch as the Soil is moſt capable of producing; but this dangerous Inadvertency may be eaſily oided, becauſe we may ſoon know what kind of Wood ill be naturally produced by each Soil, and what particular Soil is moſt coveted by each Species of Wood.

The Oak

The Oak, which affords ſuch uſeful Materials Building, never proſpers in a ſandy Soil, t thrives beſt either in Clay, or in ſtony Ground.

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* A French Cord of Wood is equal to two Loads.

The Aſh.

The Aſh, which is employ'd in the Fo mation of Ploughs and Axle-Trees, Oa and Poles, Vine-Props, and a Variety of othe Inſtruments, is always unſucceſsful in Soils that are eithe hard, or cold; or in ſuch as are compoſed of Clay o Chalk; but it acquires a ſudden Growth, and thrive to admiration, in a Plain of light Earth, of a moderat Depth.

The Service-Tree.

The Service-Tree, which is univerſally eſteem'd for the Solidity of its Wood, delights in a cold Soil; provided it be ſubſtantial and nouriſhing. Its Leaves reſemble thoſe of the Beech; but their lower Surface has a whiter Hue.

The Cornel-Tree.

The Cornel-Tree, whoſe Wood is almoſt as hard as That of the Service-Tree, riſes in every Soil, and is ſucceſsful even in ſhady Situations. The Fruits of both theſe Trees are agreeable, when they have attain'd their due Maturity.

The Beech and Yoke-Elm.

The Beech, and the Yoke-Elm, which afford ſuch a pleaſing Fuel, and are ſo uſeful in forming the Keel, as well as the interior Parts of Ships, are as proſperous as we can deſire, in hard, as well as in mountainous and chalky Lands. A very palatable Oil is extracted from the Maſt of the Beech.

The Elm.

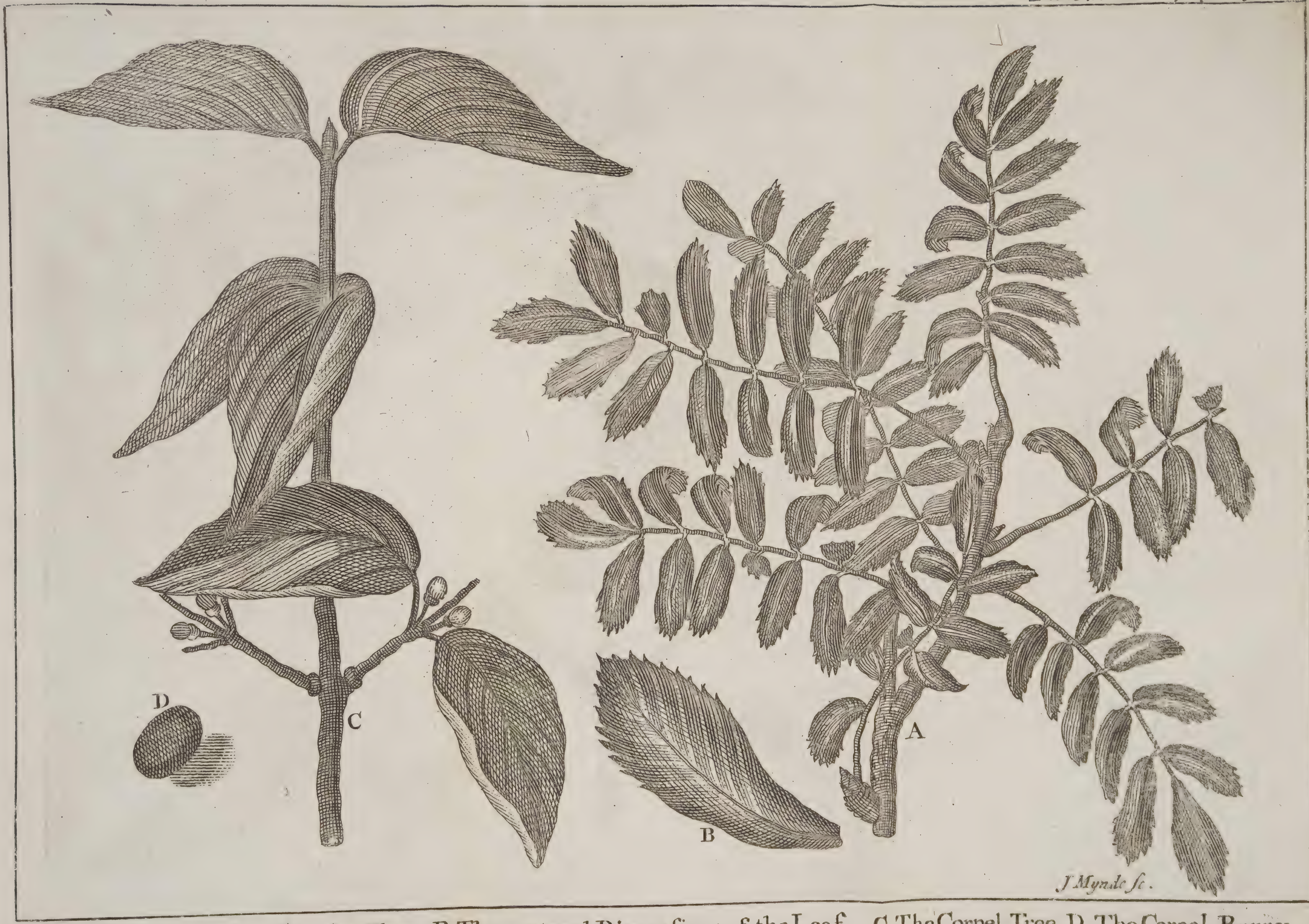
The Elm, which is proper for Pipes and Mills, and likewiſe for Pumps, and thoſe Parts of Ships, which are always immerſed in Water, and is thought preferable to any other Tree, for thoſe Works that are form'd by the Wainwright; is contented with a moveable Soil, if it be properly prepared. Thoſe, who are deſirous of ſeeing their Elms branch into a fine Head, plant them at a diſtance of twenty Feet from each other.

The Plane-Tree.

The Plane-Tree, whoſe Wood is as ſtrong and compact as That of the Beech, delights in level Lands, and Situations of a moderate Humidity.

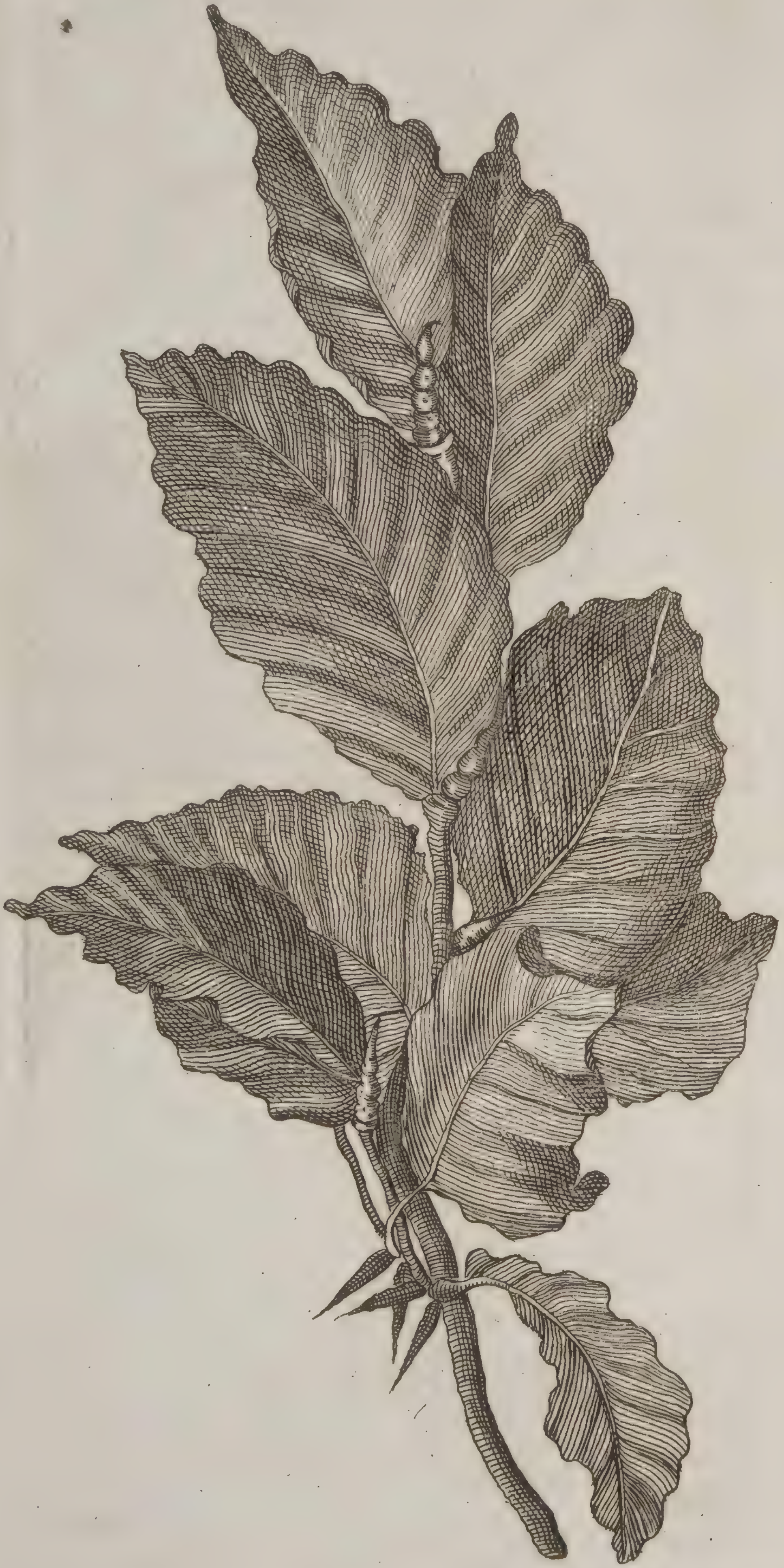
The

Plate 28 Vol. II page 290

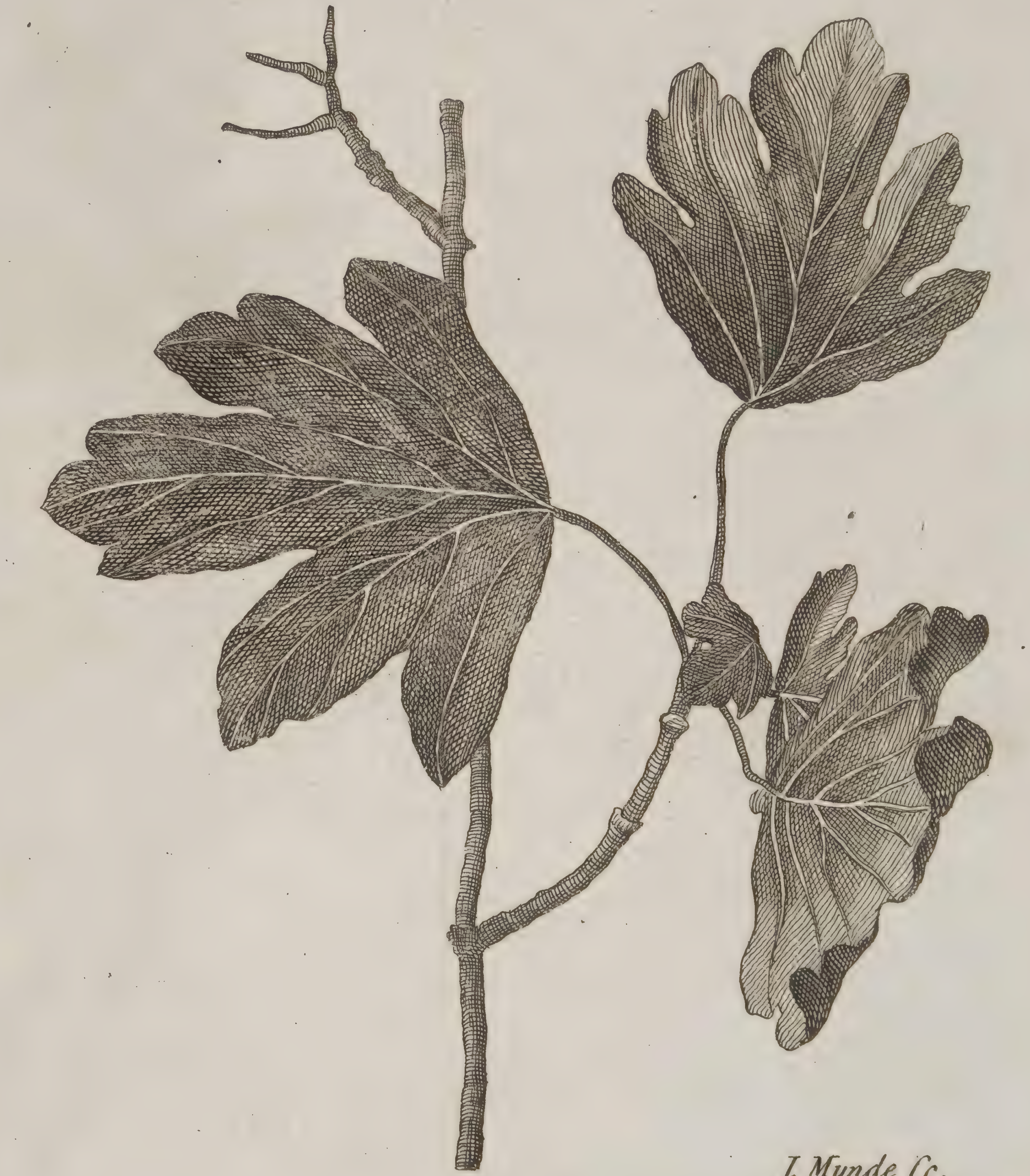


A. The Foliage of the Service Tree. B. The natural Dimenſions of the Leaf. C. The Cornel Tree D. The Cornel Berry.

Plate 29 Vol. II page 290

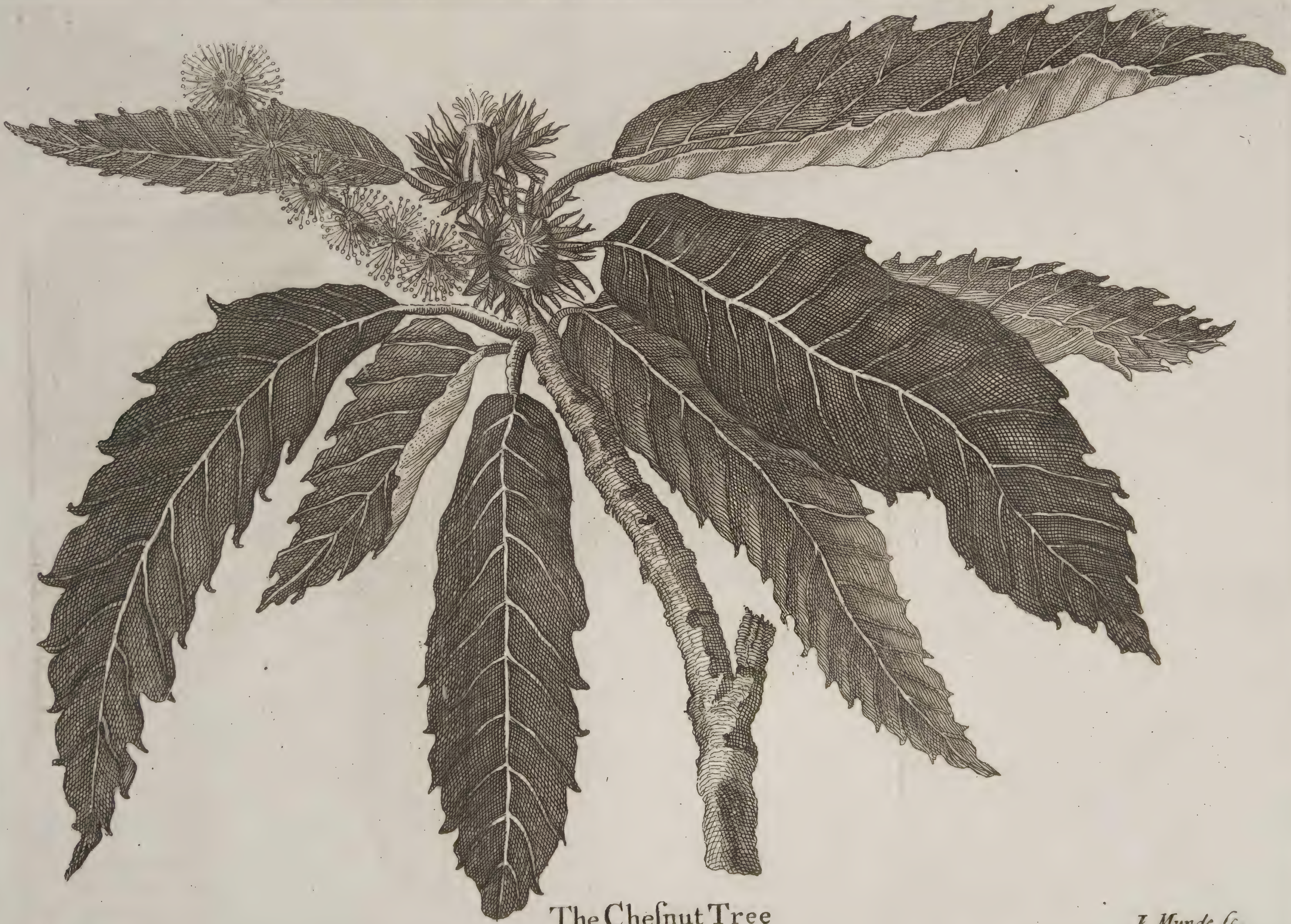


The beech Tree.



The leſser Maple

J. Mynde ſc.



The Cheſnut Tree

J. Mynde ſc.

The Cheſnut Tree.

The Cheſnut-Tree was formerly very common and uſeful in *France*; and Perſons of Curioſity and Taſte admire the Beauty and Elegance, as well as the undecaying Solidity of this Wood, in the Joinery Work of moſt of our great Churches. This Species, which is almoſt exhauſted at preſent, proſpers in the drieſt and moſt uſeleſs Soils, remote from Marſhes and all watery Lands; and it riſes on the *Northern* Declivity of Hills and Mountains. It accommodates itſelf to all ſorts of ſtony Soils, and pierces into the moſt impliant Maſſes of Earth. The Goodneſs of its Fruits; the Beauty of its Leaves, which are ſeldom injured by the Ravages of Inſects; the fine Qualities of its Wood, which render it an excellent Material in great Buildings; the Promptitude of its Growth, and the ſurpriſing Facility, with which it may be multiplied in every Soil; have already induced ſeveral Perſons to raiſe Plantations of this Tree, on thoſe Tracts of their Lands as are moſt uſeleſs and unfertile; and we may now hope to ſee this amiable Tree revive in *France*, from whoſe Soil it has been extirpated, in a great meaſure, for many Years. The Elm, which is almoſt an utter Stranger to our Foreſts, was not propagated till the Reign of *Francis* the Firſt. Several Perſons have ventured to plant it in various Parcels of Land, without any previous Proof of the Soil's Conformity to the Nature of this Tree; and they have always been very ſucceſsful. We, therefore, have much more reaſon to plant the Cheſnut-Tree in our worſt Lands, where we are certain they formerly proſper'd; and we may be ſtill more confident of Succeſs, if we only caſt our Eyes on the Lands of *Limoſin*, which are hardly capable of producing Buck-Wheat and Lentils; and yet the Cheſnut-Tree thrives there to ſuch a degree, as conſtitutes the chief Riches of that Country.

The Walnut-Tree.

The Walnut-Tree, whoſe uſeful Fruit and Wood are univerſally known, delights in a ſtrong Soil. It plunges its Roots into the Earth in a perpendicular Deſcent, like thoſe of the Oak, and it ſometimes thrives in the moſt chalky Lands. It will be proper to plant theſe Trees at the diſtance of thirty, or even forty Feet from each other, and remote from high Roads, to prevent injurious Viſits from Paſſengers.

The Hazle-Tree. The Hazle-Tree will ſucceed, without the leaſt difficulty, in a light and ſandy Soil; it is likewiſe a very profitable Tree in the Coppice, where, in the ſpace of ten Years, it will furniſh a large Quantity of Hoops and Faggots, and Hop-Poles, beſides a Number of other Conveniencies.

The Linden, or Lime-Tree. The Lime-Tree proſpers in moſt Soils, but thrives beſt in fat Lands; I, however, have ſeen Trees of this Species that have been perfectly beautiful, though they grew in a Maſs of Sand that was ſix Feet in depth. The Wood of this Tree is not proper for large Works, but the Bark is very uſeful to Rope Makers.

The Birch-Tree. The Birch-Tree will adapt itſelf to all Situations and Expoſures.

The Willow. Marſhy Soils, and even ſuch Lands as are entirely cover'd with Water, and which frequently appear to be the Seats of Sterility, will produce thoſe particular Trees, which may properly be call'd amphibious, becauſe they ſeem to ſpring, partly from the Earth, and partly from the Water; as the Common and Dwarf-Willows, for inſtance, which prove ſuch a uſeful Ornament to thoſe Edges of Land that are abandon'd by Rivers. To this Claſs we may likewiſe refer the white, as well as the black Poplar, and the Aſpen, which is another Species of the Poplar. All theſe Trees delight in Humidity, which is likewiſe extremely favourable to the Alder. This laſt Tree, and alſo the Oſier, are the beſt Productions of marſhy Lands. The Alder is form'd into Pipes; and it likewiſe makes excellent Piles for Rivers. Its Wood is very durable under Water, but ſoon decays in the open Air.

The Poplar-Tree.

The Alder.

If any particular Soil ſhould happen to prove unfavourable to theſe uſeful Trees, which is almoſt impoſſible in our Climate; it may, at leaſt, be planted with Box, which rears its Head in the coldeſt Situations. The Wood of this Tree is form'd into Spoons, Combs, and Boxes; and it likewiſe furniſhes Handles

The Box-Tree.

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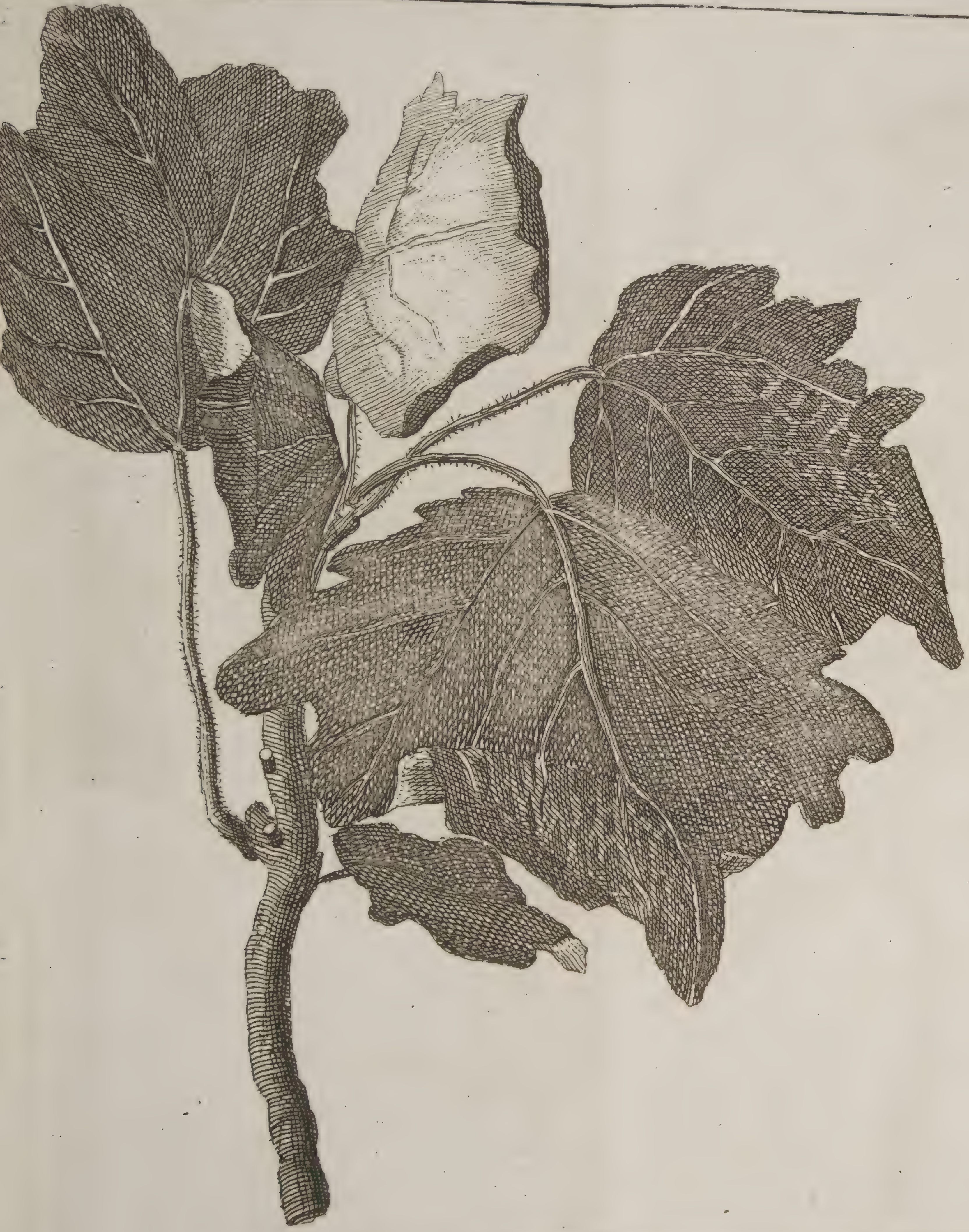
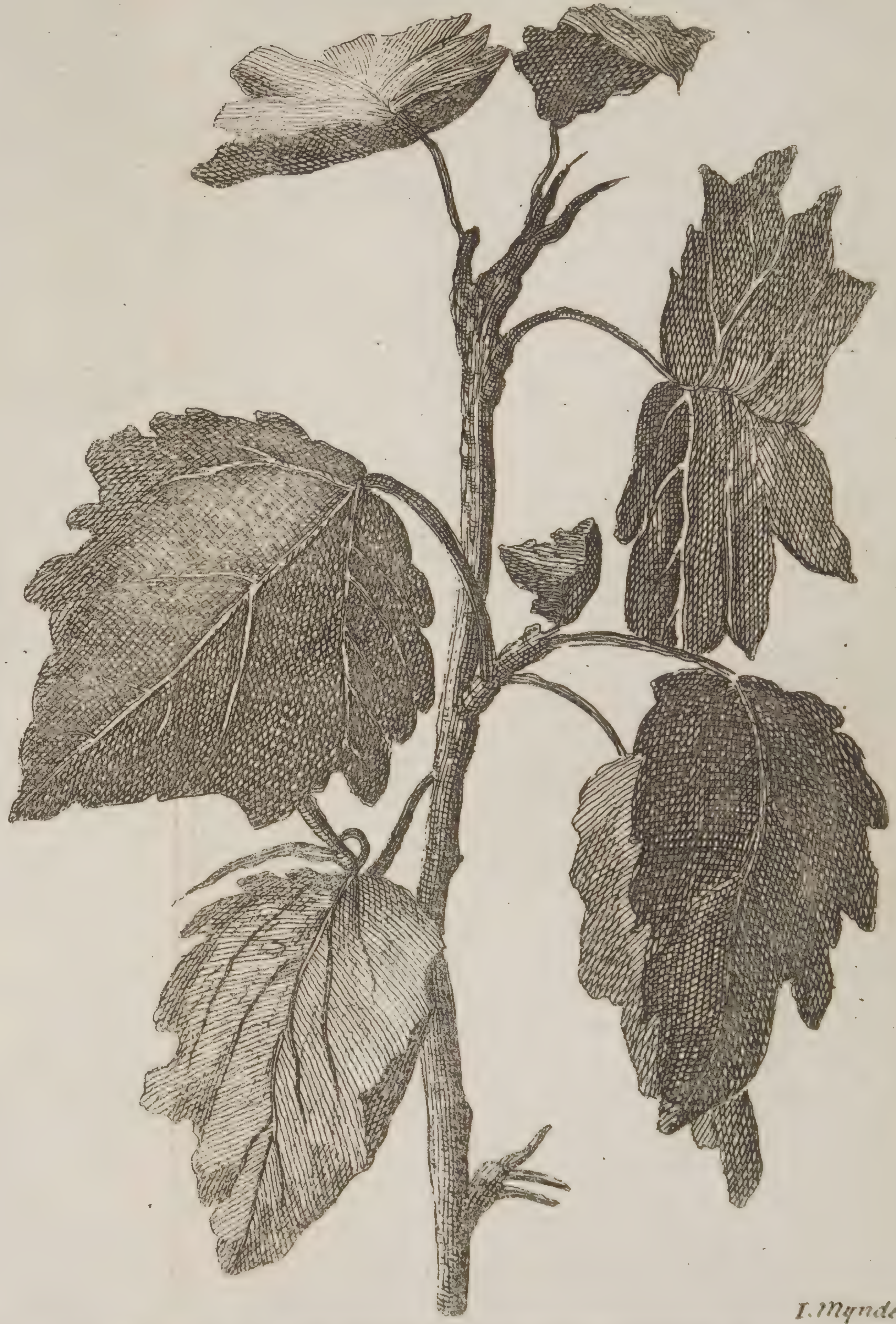


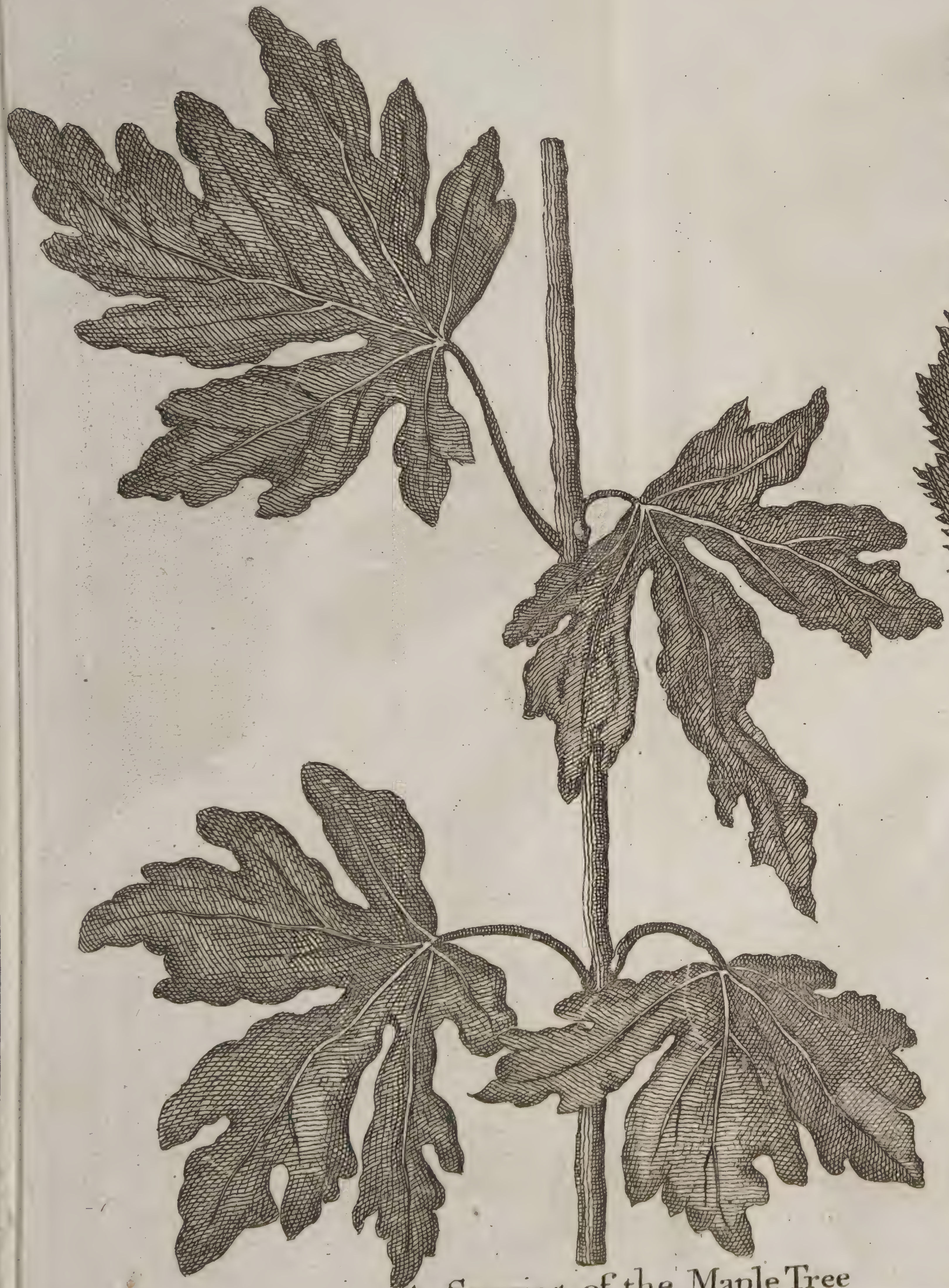
The Foliage of the Aſpin Tree.



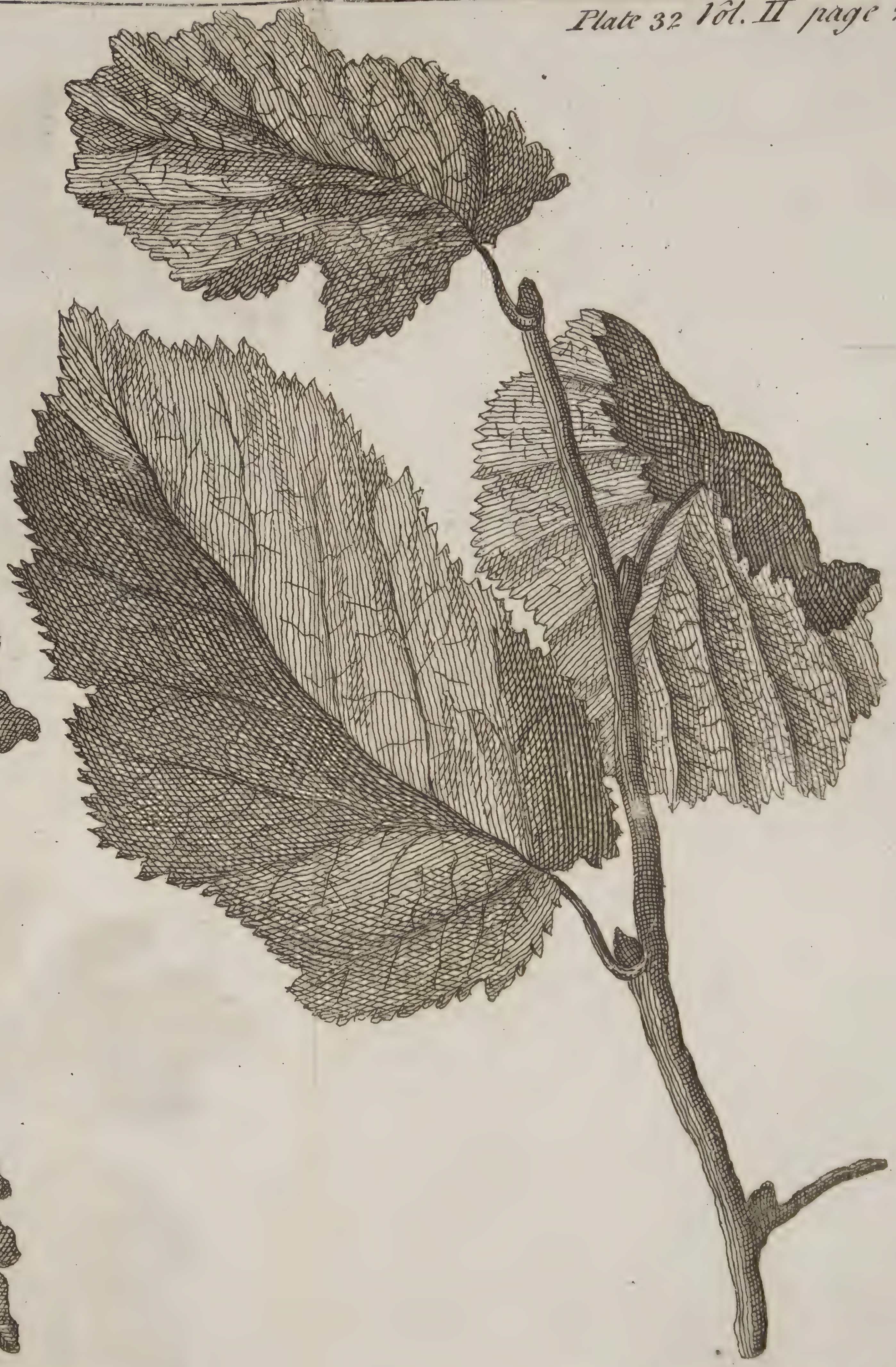
The Foliage of the Poplar Tree.

I. Mynde ſc

Plate 32 Vol. II page 292



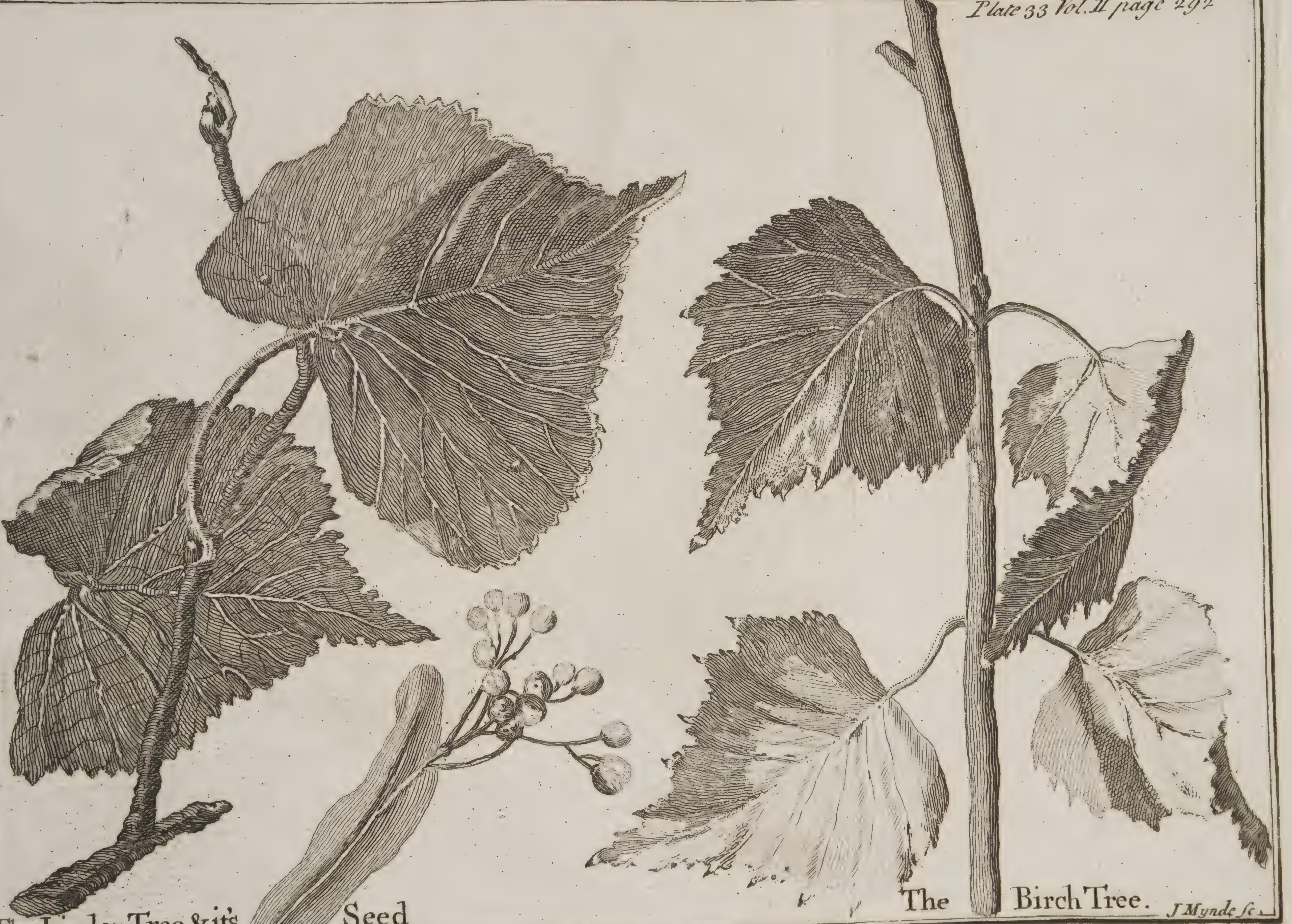
A Species of the Maple Tree



The Haſle or Filberd Tree

J. Mynde sc.

Plate 33 Vol. II page 292

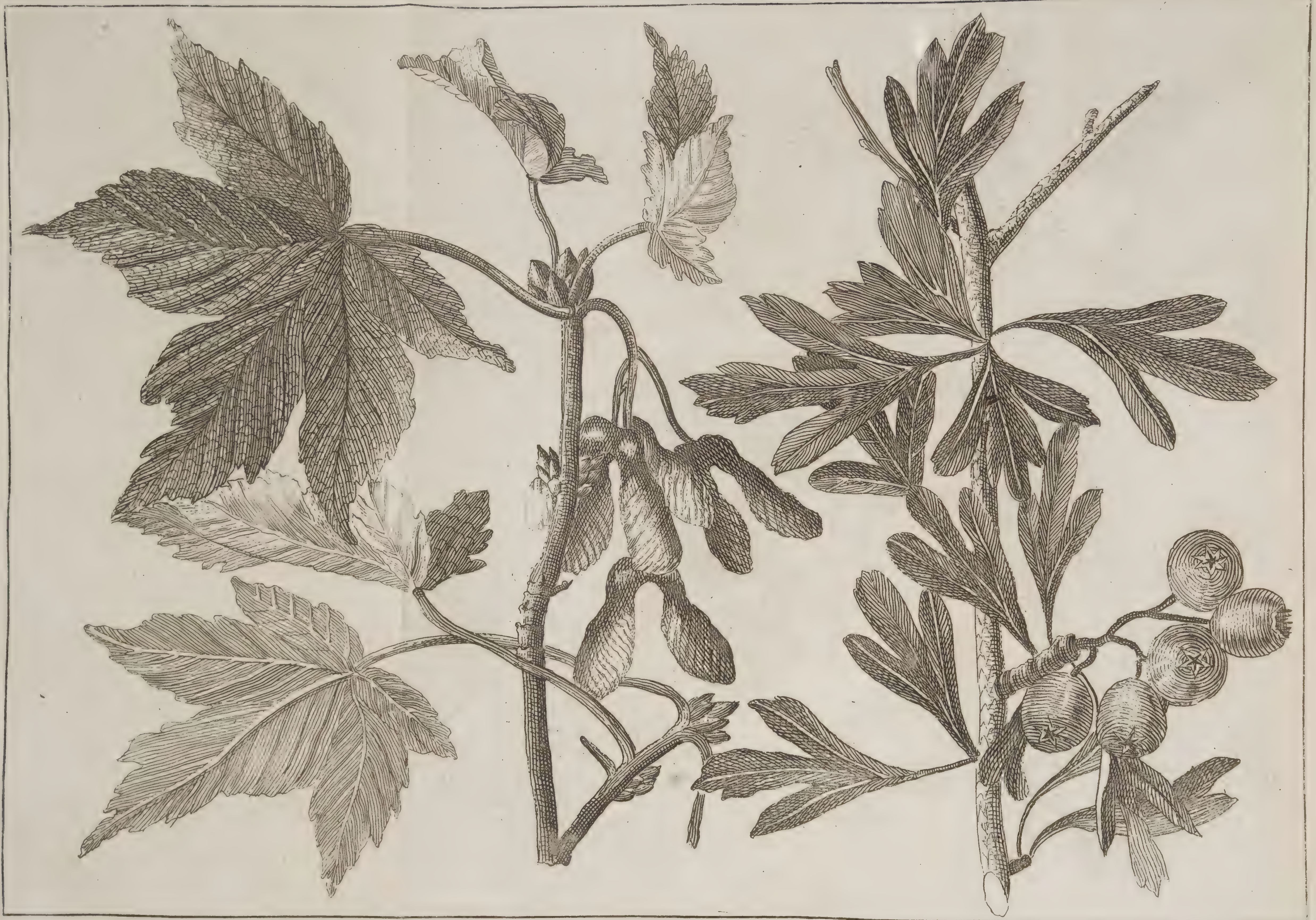


The Linden Tree & it's Seed

The Birch Tree.

J Mynde sc.

Plate 34 Vol. II page 293



The Greater Maple
falsly called the Sycamore tree

The Lazarole
or Neapolitan Medlar

I. Mynde scul.

Handles for a Variety of Inſtruments. The ſame Soil will alſo prove kindly to ſeveral roſinous Ever-Greens; as the Pine, the Cypreſs, the Larch-Tree; and eſpecially the Fir, whoſe Wood is of infinite Uſe to the Joiner.

The Pine.
The Cypreſs.
The Larch-Tree.
The Fir.

The Deity has not only diverſified the Species of Plants, in proportion to our different Neceſſities, but has likewiſe accommodated thoſe Plants with a proper Variety of Soils. Man therefore, who may eaſily be ſenſible of this apparent Ordination and Conformity, has no Privilege to complain of the Sterility of the Land he enjoys. If his Patrimony proves inſufficient for his Support, he can only reproach himſelf either for his Indolence in its Cultivation, or his Unreaſonableneſs in requiring thoſe Productions, which are not adapted to the Soil he poſſeſſes.

Chevalier. You have mention'd ſeveral ſorts of Trees, Sir, that always retain their Verdure; but what particular Advantage may we derive from the Diverſity of the Species?

Prior. While the Deity conſigns the generality of Plants to a kindly Repoſe in the Winter, in order to recruit the Vigour they had exhauſted in the preceeding Seaſons; he perpetuates the Verdure of the Juniper, the Holly, the Ever-green Oak, and a Variety of other Species. And though this Proceeding makes it evident, that his Operations are not ſubjected to any Laws or Neceſſity; it is equally certain, that they are always adapted to the Welfare of Man; and that he never exerts them with the leaſt Appearance of Caprice. Were it not for this unchanging Verdure, what Expedients could occur for the Preſervation of the Hare, the Hart, the Roe-Buck, and a Number of other Animals that contribute to the Nouriſhment of Man, without creating him any preparatory Cares for their Subſiſtence.

This Truth will be render'd ſtill more apparent, if we take a view of thoſe roſinous Trees that fill the *Northern* Regions, and whoſe Subſtance is impregnated with an Oil that ſecures them from the Penetrations of Rains and Froſts. The great Creator has form'd theſe immortal Foreſts, to cheriſh the Inhabitants of thoſe rigorous Climes with a reviving Warmth.

The ſame Almighty Being diſplays another Inſtance of his Goodneſs and Independency, in cauſing the Foreſts to adminiſter ſupport to a Multitude of Animals, who are not permitted to claim their Suſtenance from Man. He has prepared a ſafe Retreat for theſe Creatures, in the deep Receſſes of Woods; and he there ſupplies them with a Sufficiency of all they need. He alone arrays them with their proper Habits; his unaſſiſted Providence nouriſhes the Lions and Tygers, and Leopards; the Harts, the Roebucks, and Does; the wild Boars, the Wolves, and a ſurprizing Variety of Birds. He lodges them in ſuch Manſions as are commodious, and multiplies each Species, in their ſeveral Progenies. To ſome he has imparted Strength, others he has endued with Subtility; he diſtinguiſhes ſome Tribes by their Agility, and renders others dreadful by their native Rage; that Man may be alarm'd from the Indolence, into which he would be lull'd by too much Security.

The Deity cauſes all theſe Animals to exhibit to Mankind the Appearance, either of an advantageous Prey, a formidable Foe, or ſome acquirable Conqueſt. He ſtrengthens him by the Exercies of the Chace, and qualifies him for oppoſing a more dangerous Enemy, in any neceſſary Conjuncture. He habituates him by an innocent Probation, to defend himſelf, in the moſt effectual manner, againſt a lawleſs Invader of his Property. All the Animals, therefore, as well thoſe that nouriſh us, as thoſe that are injurious to us, may be conſider'd as ſo many real Preſents from the Creator.

Our Dominion over theſe Creatures is render'd moſt conſpicuous in the Chace. In vain do they ſpring aloft in the Air, or ſhroud themſelves in the intricate Receſſes of their Wilderneſs. When they even plunge into the Bowels of the Earth, they are ſtill incapable of eluding our Purſuit. We can draw them from their Retreats, either by Dexterity, or Force. The Bark of the Holly, and the ſmall Berries of Miſletoe, that twines about the Oak, and ſome aged Apple-Trees, furniſh us with a Glew that fetters the Wings of little Birds; and we can ſurpriſe the largeſt of theſe Animals by a Variety of Snares, and other artful Inventions. We can eaſily allure to our Nets, Mallards, and wild Geeſe, Curlews, Teals, and Lapwings; Plovers, Ortolans, and all other Birds of Paſſage. We can cauſe a Ferret to diſlodge the Rabbit from her ſubterranean Retreat; and the Badgers and Foxes have no Aſylum that can ſecure them againſt the Aſſaults of the Terrier. We have Birds and Dogs of all Sizes, to whom we can communicate our Intentions, in a Language they underſtand; and according to our manner of intimating our Orders, either by the Horn, or the Voice, they launch after their Game, they unravel the Track, they wind about, they return when we call them off; they rectify their Defaults, and aſſiſt us with the Keenneſs of their Sight, the Accuracy of their Scent, and the Agility of their Motions, to diſtinguiſh and ſecure the Game we are ſo deſirous of obtaining.

Inſtead of the Bow and Arrow, we have, at laſt, furniſh'd ourſelves with Arms that are more expeditious in their Execution, and whoſe Effects are inevitable. We may aver, with ſome appearance of Truth, that we now diſcharge a Volley of Thunder, ſince we launch through the Air a flaming Shaft that transfixes Animals at a great diſtance, and frequently lays them dead at our Feet, before they could once be alarm'd at the Sound, and the Flaſh which accompanied the Shot.

Chevalier. I judge, by the Delight I experience in Hunting, that thoſe, who are debarr'd from that Recreation, re treated with Injuſtice. For what reaſon, Sir, are the Pleaſures of the Chaſe uſually accorded to none but the Nobility?

Prior. Man is incapable of living alone; and Society, which is ſo neceſſary to his Welfare, would be entirely diſoncerted, if all the Individuals, who compoſe it were rm'd. I may add too, that Hunting is an improper Reeation for the lower Claſs of People, becauſe it would inllibly divert their Attention from Trade, and the Cultivaon of the Earth. It likewiſe comports as little with the Condition of Eccleſiaſtics. Their Time ought to be deoted to the People, who have exempted them from the ainful Solicitudes of Life, by the Liberality of their lms; in order to facilitate their Exerciſe of Prayer, their pplication to Study, and their Performance of the minierial Functions, with which they are charged. The haſe has, therefore, been wiſely reſerved for thoſe, who e to govern and defend the Community. Perſons of this

Rank, may acquire, even in their Hours of Leiſure, and amidſt the noble Pleaſures they are privileged to enjoy, the amiable Qualities of Fortitude and Patience, by which they ought to be diſtinguiſh'd from the reſt of Mankind. The Chaſe habituates them to Activity and Attention; it inſpires them with Prudence, and a formidable Intrepidity of Mind, which renders them incapable of ſhrinking from any Danger or Fatigue.

The END *of the* SECOND VOLUME.

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